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Today, It's Peace With Honor
JAPAN'S GAMBIT
IN SEARCH OF TOM SNYDER
The TRIVIA DISCS

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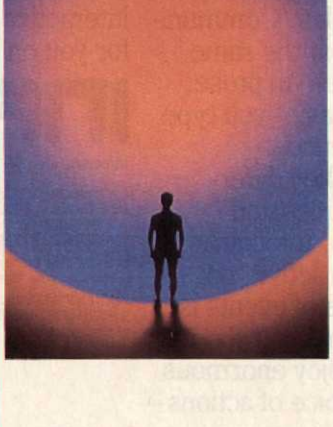

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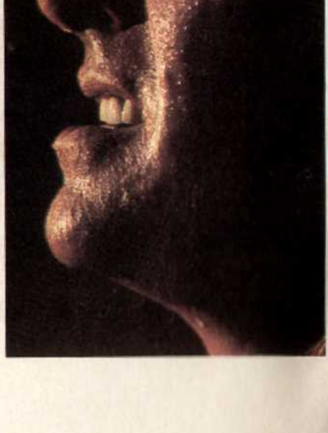

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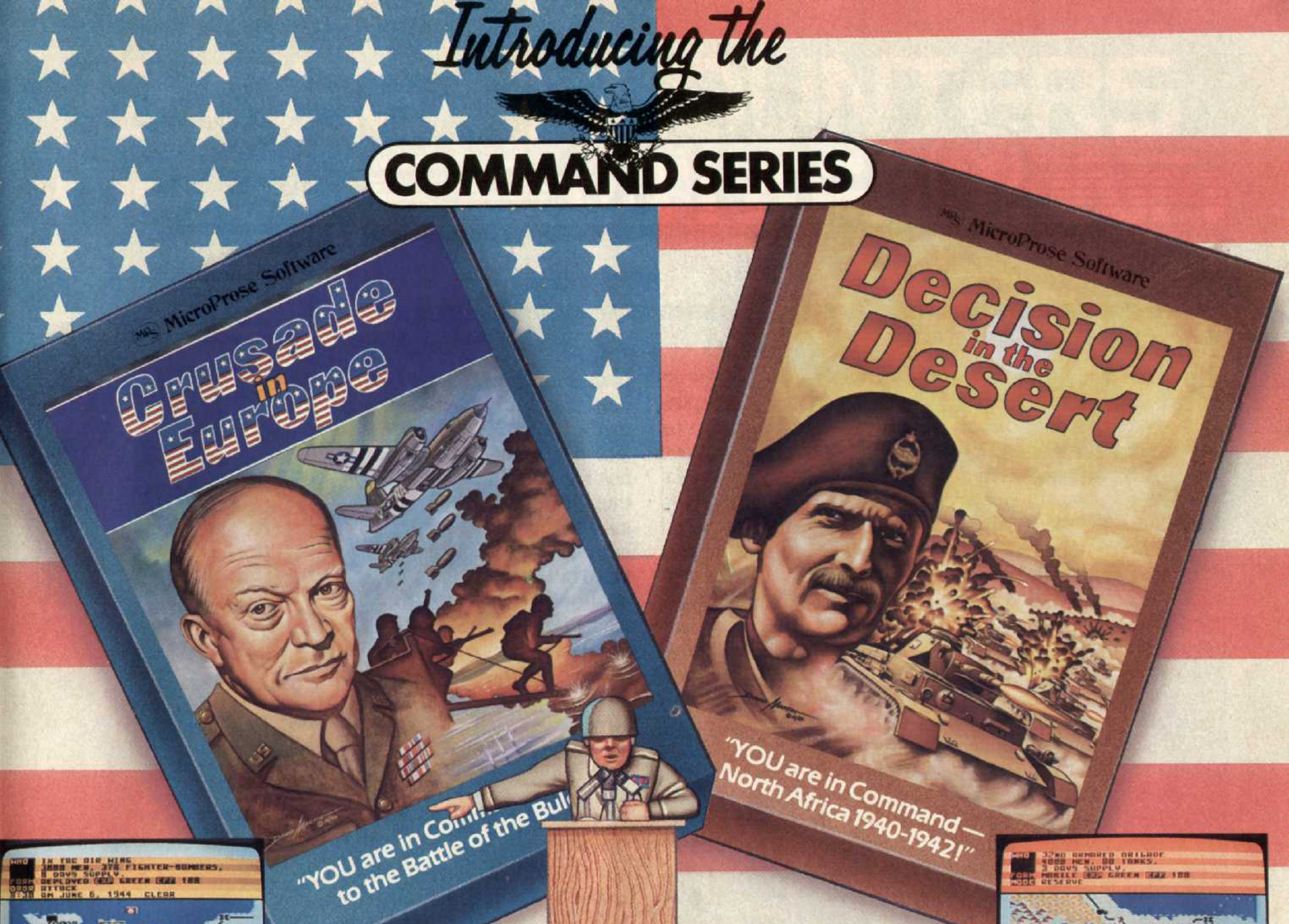

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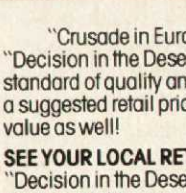

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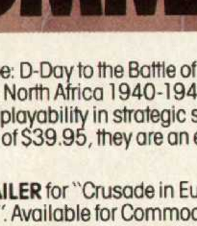

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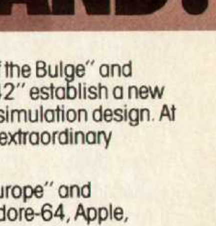

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On-Line

Our Entertainment Philosophy

It was as if the The New York Times finally discovered something about microcomputers that everyone else already knew. In a late winter story in its Living section, the newspaper of record had an epiphany and announced that people who owned Apples and IBM PCs used them for one of two things: small business purposes (word processing, data base management, or spreadsheet analysis, primarily) or as an entertainment device. The messages delivered by an errant press and advertisers using scare tactics were finally rejected: the computer is not a necessity, never will be. Thankfully, most of us have forgotten all the stuff spewed out on TV by the Alan Aldas and Bill Cosbys; to paraphrase all the propaganda, if your child doesn't get a home computer, he's going to be left behind. The high-pressure sales techniques of two and three years ago didn't work. You, the public, rejected the Colecos, the Texas Instruments, the Timexes, and others.

The computer is merely a tool — albeit a damn useful one — to help you do work, or a leisure time product with fantastic potential. The inexpensive ones are simply luxury, like a videocassette recorder or a stereo. It's going to be a long time, if not forever, until a microprocessor is going to be able to mow the lawn and do your windows. Sure, it can handle a variety of mundane tasks; cataloging the family recipes, balancing the checkbook, and collating your Rolodex. But everybody knows that all those mundane tasks are still mundane, whether you perform them electronically or manually. And, of course, we all know that it's faster to check your balance, find out the vet's phone number, or look up the ingredients for chocolate souffle by hand. Never was the hackneyed IBM tease ("It's Better Manually") more appropriate.

The story of the home computer is not unlike other electronic hype stories. Teletext and Videotex, "information services" which rely on over-the-air delivery, have been terrific failures thus far. The reason is simple. The purveyors sold them as some kind of revolution. The services weren't just television and entertainment, they said. They were more. It would replace the newspaper. All we had to do was tune-in channels and check vast data bases to get information. But we're information rich and knowledge poor. We're told we have to have heaps of facts while we disregard the small truths. The reality of the small truth is that most of us still like leafing through newsprint with our morning coffee, and we probably will retain that tradition for years to come.

Home banking is another story. It's something we heartily recommend against. The banks are now giving you the privilege of making all your electronic fund transfers via computer and modem in the privacy of your den. For your good faith, they're only going to charge you $5 to $15 a month for this "privilege." In other words, what the banks once did for free, is now going to cost you. To boot, you have to perform the labor. The only way you can let these financial institutions know how you feel about their arrogance is in the market place. You have to reject them outright by withholding your business. Tell them it's cheaper to use the automated teller (still 24-hour banking). Tell them you'd rather use your computer to play *Suspect* and your modem to catch up on *MegaWars*. Bankers, obviously, haven't yet discovered the cruel realities that Coleco, Timex, and TI did in such a painful, expensive way.

So rather than toss your computer out as a disappointing labor-saving device, let's get some perspective on what it does that's fun. Our magazine has sponsored the "Arky" Awards for the past three years. It was like the Oscars for the arcade industry. In 1982, the media thought it was the hottest story in gaming. Programmable videogames were enjoying big sales, and computer entertainment was just going through its infancy. Now people would rather play *Zork* and *Ultima* than *Tempest* and *Centipede*. We're adapting to the new forces of business nature. We're going to bring you the latest, most authoritative reporting on all kinds of electronic entertainment.

We've long since stopped focusing on what the home computer is not yet good at. For now, we'll have to settle for mind-teasing adventures, cockpit-real flight simulators, near-master level chess programs, and so on. In The Times piece, Trip Hawkins, the president of Electronic Arts, said, "the primary use for home computers is still entertainment." We couldn't agree more with Trip.

—The Editors

computer ENTERTAINMENT

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May, 1985

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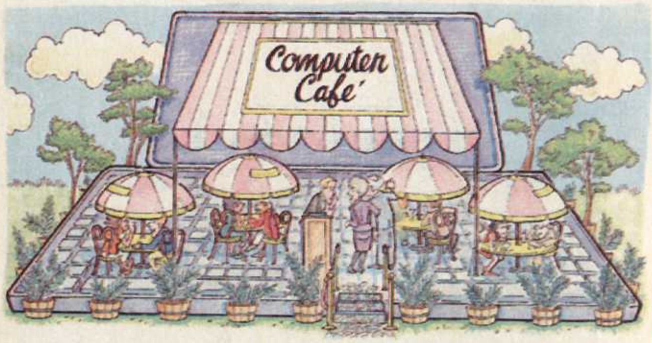


CAFE L.A.

Having neither technical or broadcast experience, Michael and Ellen Walker weren't quite sure what they were getting into when they conceived "The Famous Computer Cafe," a half-hour radio magazine featuring decidedly low-tech information for computer novices, over a year ago.

"I had worked with computers," Ellen explains, "but Michael didn't have the faintest idea what to do with them." With the hunch that there "must be a lot of people who feel the same way as I do," Michael proposed a half-hour show to KFOX-FM. To his complete astonishment, the station offered them airtime the following week. Eleven months later (in March), the National Public Radio (NPR) network began syndicating the show. "The Famous Computer Cafe" now eats up an hour of NPR airtime each week.

The Cafe's menu ranges from meaty philosophical discussions about the effect computers are having on society's mores to prime-cut interviews with such diverse personalities as Bill Gates, Edwin Moses, Herbie Hancock and Timothy Leary. A highlight of the show is the live, call-in segment where listeners share their troubles with "Doctor Disk."

The show uses a cafe backdrop—people chatting, dishes rattling—as a way to relax the listener. Meanwhile, in the foreground, the Walkers and executive producer Andrew Velcoff boot around issues and information without getting too technical. "We operate this thing from discovery," says Michael. "We're consumers, too."

A radio jock at heart (though his background is in marketing), Walker has less-than-modest aspirations. "I'd like to be considered the Dick Clark of the Information Age," he says.

The Walkers and Velcoff are about to launch a two-minute "info-mercial" on the CBS Radio Network. Called "On-Line America," the spot will try to answer the question, "But why do I need a personal computer?" Sounds like more fast food for the Information Age.

The Computer Cafe's chefs Michael and Ellen Walker and Andrew Velcoff (sitting) prepare low-tech meals for NPR listeners.

VIDEOWORKS WONDERS

From the people who brought you *MusicWorks* comes *VideoWorks* for the Macintosh — a 24-channel movie-maker that can be used to create cartoons as well as slide shows for business presentations. This $100 package — developed by MacroMind for Hayden Software — comes with three disks and can be used in tandem with *MusicWorks*, *MacVision* and other drawing programs.

Two of the disks provide examples and contain the system while the third includes an assortment of backgrounds, clip-art objects and *CheapPaint*, a utility similar to *MacPaint*. MacroMind's Marc Canter says that *VideoWorks* features real-time recording and frame animation, a notational system, copy and flip-book capabilities, and can store up to a 30-minute presentation. You can also use it with *MusicWorks*, to write a simple, two-voice melody to go along with your slide show or cartoon.

With *VideoWorks* and *MusicWorks* now both available, MacroMind has decided to shelve its plans to design *SoundVision*, an animation-music package, for the Mac. (It is planned for the Amiga once that computer comes out.) Canter also told us that *MusicWorks* has been enhanced; all new disks will allow you to make better printouts, and feature an overview window which lets you see 32 bars at once with, best of all, a scratch bar. "It's a digital editing effect," Canter says. "It lets you drag the music — you know, like Herbie Hancock or

Arthur Baker."

"Hip-hop" on the Macintosh? Wait until the kids in The Bronx hear about this.

WEAR WARE

Will MacWonders ever cease? Meet Jackie Shapiro — she's a fashion designer who has adapted *MacDraw* and *MacPaint* to produce a computer-generated line of clothing, called Garb. Her collection of interchangeable print and solid separates are available at Henri Bendel's and Fiorucci's in New York.

Two of Jackie Shapiro's "Computer-Generated" MacFashions.

"Using the Mac," she says, "lets me investigate every possibility to find the optimum solution for a garment." Shapiro mixes and matches thousands of combinations — shapes, patterns, silhouettes and body types are all stored on customized files — until she's happy with a particular design. Stored in the shape file, for instance, are collars, pockets and cuffs in a variety of styles.

Shapiro's hands may be on the keyboard, but her tongue seems planted in her cheek as she describes Garb as a "generic aesthetic, a fashion-forward sportswear company for the '80s." Garb labels simply read "PANTS," "SKIRT" and "TOP" (in small letters, they also say, "COMPUTER GENERATED"); the clothes cost from $30 to $100. For more information, call: (212) 355-1276.

MICROPRICES

Two new Micro Fun titles, *Station Five* and *Short Circuit*, can be yours for the low, low price of $20 each, the company has announced. Both are arcade-type games that challenge you to save the world from nuclear destruction.

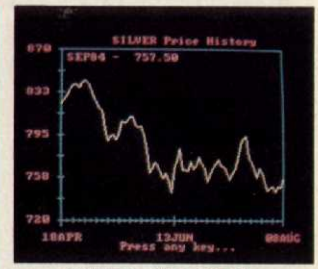
Datasoft has also come up with a unique plan: Beginning February 1, all new packages of *Pac-Man, Dig Dug, Pole Position, Bruce Lee* and *Letter Wizard* disks can be used on either the C-64 or Atari computers. Both programs are written onto the same disk. *Zaxxon*, the company's hottest title, will continue to be packaged separately: one for Atari owners, one for Apple II series owners. Datasoft has sold more than 300,000 *Zaxxon's* since acquiring the license in 1982.

SIMULATING FUTURES

Jim Nelson manages the futures service center at Shearson/Lehman Brothers. He remembers how difficult it was at first to absorb everything he needed to know about futures markets. In fact, before he really understood the intricacies of the Commodity Exchange (Comex) in New York, trading options and futures on precious metals had a way of putting him to sleep.

Now Nelson, who describes himself as a "computer idiot," is losing sleep over *Comex — The Game*, a computer simulation that was intended as a training tool for novice traders, but has become an underground hit on Wall Street. Already, 2000 copies (for IBM computers) have been sold. The Apple version is slated for a June release.

You begin with $25,000 and play for either 100 days, 50 moves or until your cash dries up. Actual Comex prices, based on the exchange's 10-year history, are written into the program. Enter the date, the current gold and silver prices and the interest rate, and automatically a 180-day price table is created. Consult the futures history graph or check the latest prices, then select the "point-of-view" menu, which runs the gamut from "strongly bullish" to "strongly bearish," with "stable" and "volatile" in between. At this point, you decide on your strategy.



COMEX—THE GAME

So effective is *Comex — The Game* that the exchange offers workshops where teams play against each other. The workshops' goal, according to Comex's Jennie Hirshey, is to teach the complexities of buying and selling commodities in a risk-free environment. As an added incentive, each player on the winning teams walks away with his own *Comex* game. And for those of you who are willing to spend $69.95, the futures can be yours.

WHERE'S THE BUCKS?

Synapse Software President Jon Loveless came to town recently to show off his company's first "electronic novel," *Mindwheel*, talk about *The Wizard of Wall Street*, a stock-market simulation the company has just released, and generally offer his opinion on a variety of subjects. We were especially curious to know whether Synapse would be supporting Atari's line of ST computers (aka, "Jackintosh").

"We're going to wait and see," said Loveless. "Just like we did with the [Commodore] 64. I'm skeptical about those machines. Nobody's really seen them yet, except at the Electronics show [in January]; I don't know how far along

Bulletin Board

Notes from the Neighborhood

ESSEX (SYNAPSE)

they are in development."

Atari's chairman Jack Tramiel told an audience of software publishers at the show that Atari would be advancing money to companies interested in developing software for the ST line. But, according to Loveless, Atari "hasn't been running around doling out checks. We're interested and excited about the STs, but without financial assistance from Atari we can't take the chance." Will the STs succeed? "If Atari comes close to getting them out at the prices they've said [$400 for the 130, $600 for the 520], they'll do very well," he predicted.

Loveless added that Synapse, which is now a subsidiary of Broderbund, is "developing software for a state-of-the-art 68000 [chip] graphics machine," but wouldn't say which computer that is. When asked if the name starts and ends with an "A" and has something to do with Commodore, he politely answered, "No comment."

DELETE FILE

American Playhouse's production of the John Varley short story, "Overdrawn at the Memory Bank" wasn't worth saving. Loaded with computer cliches and poor graphic effects, it should be entered into some Hall of Fame as one of the worst teleplays ever.

Executive producer David Loxton describes it as a "thinking man's *TRON*." The main character, Aram Fingal (played by a confused Raul Julia), works for a data processing company sometime in the future. Fingal has been making a habit of hacking his way into a restricted file that contains old movies; one day he's caught (watching *Casablanca*), and is sent off for punishment. But a mix-up occurs: his mind becomes trapped inside the company's master computer and his body disappears.

Suddenly, Fingal has great powers. In what Loxton calls an "inspired invention," screenwriter Corinne Jacker created a "*Casablanca* motif that lets Fingal experience first-hand his cinematic dreams and fantasies." A cheap imitation of Rick's Bar becomes the backdrop for the climactic showdown between Sidney Greenstreet and Peter Lorre look-alikes and Julia's unconvincing Bogie. (What are they doing at Rick's?) Fingal gets the girl (Apollonia, the techie who rescues him from the computer) in a finish that was intended to be mind-bending, but is absolutely awful. These effects make Mr. Clean look space-age.

Loxton admits that "Overdrawn" was completed more than a year ago, and was supposed to be aired on Showtime before PBS picked it up. He took liberties with Varley's story, which didn't include the *Casablanca* motif, because "we needed to externalize the conflict, the battle inside Fingal's brain. In the story it was too existential. We had to visualize his thinking process. This is what we came up with."

Varley declined Loxton's request to write the screenplay. Next time he'll know better.

APPLE & ORANGES

"Relaxed is the last adjective I'd use to describe Apple." So says author Mike Moritz, who profiled the company in his book, *The Little Kingdom: The Private Story of Apple Computer*. "People still think of Apple as a flakey start-up. There's nothing flakey about Apple."

Moritz started working on the book in 1983 while he was a reporter at *Time*. Halfway through the research, Apple chairman Steve Jobs cut Moritz's access to the company. "Remember the 'Machine of the Year' cover story we did?" Moritz asks, referring to *Time*'s tribute to the computer that year. "I cowrote the story. Jobs didn't like what was written about him in it and decided that he couldn't trust me to present a balanced portrait of Apple."

You'd hardly know from reading the book that Moritz was restricted by Jobs. In one boardroom scene, he reveals Jobs as a publicity-hungry executive, seeking maximum coverage for the yet-to-be-released Macintosh. "What we need is a cover of *Time* or *Newsweek*," Jobs told his publicity staff. "I can see the cover as a shot of the whole Mac team. They'll really go for that. 'New computers from hi-tech kids' and all that. Then we

Raul Julia (left) gets no sympathy from the devil, Donald C. Moore, in PBS' "Overdrawn."

TIRED OF WAITING FOREVER FOR YOUR PROGRAMS TO LOAD?

EPYX IMPOSSIBLE MISSION
MONTY Plays SCRABBLE
Leisure Genius
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THE WORLD'S GREATEST BASEBALL GAME
EPYX PITSTOP II
STILL LOADING

INTRODUCING THE FAST LOAD CARTRIDGE FROM EPYX.

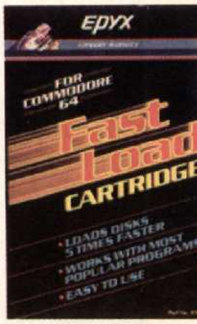
You're tired of waiting forever for your Commodore 64 programs to load. But it's no use glaring at your disk drive. Calling it names won't help, either. It was born slow – a lumbering hippo. You need the FAST LOAD CARTRIDGE from EPYX. FAST LOAD transforms your Commodore 64 disk drive from a lumbering hippo into a leaping gazelle. With FAST LOAD, programs that once took minutes to load are booted up in a matter of seconds.

FAST LOAD can load, save and copy your disks five times faster than normal. It plugs into the cartridge port of your Commodore 64 and goes to work automatically, loading your disks with ease. And that's only the beginning. You can copy a single file, copy the whole disk, send disk commands, and even list directories without erasing programs stored in memory.

And unlike other products, the FAST LOAD CARTRIDGE works with most programs, even copy protected ones, including the most popular computer games.

The FAST LOAD CARTRIDGE from Epyx. Easy to insert, easy to use and five times faster. So why waste time waiting for your disks to load?

Speed them up with FAST LOAD!


EPYX
FOR COMMODORE 64
Fast Load
CARTRIDGE
LOADS DISKS 5 TIMES FASTER
WORKS WITH MOST POPULAR PROGRAMS
EASY TO USE

EPYX

could do with an hour-long TV special with (Dick) Cavett interviewing Burell (Smith) and Andy (Hertzfeld — both members of the Mac team). Once it starts to happen, it snowballs. I can see *People* magazine coming down and putting Andy on the cover. We can create a mini-fame for each of these people. It'll be a gas."

About Jobs, Moritz says: "He's the dynamo and spark behind Apple. His energy, incredible ambition and drive for perfection has got the company to where it is. He's a remarkably curious creature." But about Apple, he reports: "It's kind of spooky. I just don't care for the evangelical computer fervor that exists there; people marching in lockstep for a cause always makes me uncomfortable. It's easy to be deceived by superficial appearances in Silicon Valley — the jeans, the short-sleeves, the open collars, the unnumbered parking spaces. Believe me, Apple is not laid back. People work as hard there as at any other Fortune 500 corporation."

Author Mike Moritz

"I still believe I wrote a balanced portrait of Apple," Moritz contends. "That was always my intent." He only wishes the flakey Jobs would have allowed him to complete his research. "Had he cooperated, it would have been a better book."

Entech's Ray Souler (left) makes no "Bones" about it.

NOTED

He's played with Motown groups and singer Rick James. He has his own band called Tarxanne. He's from Buffalo, and recently was awarded $1000 by EnTech for composing the best computer song ("Melting Pot") using the company's *Studio 64* program and a Commodore 64. Meet Louis "Bones" Harris — drummer, bass player and keyboard whiz, especially when he gets his hands on the 64.

Actually, Bones used a musical keyboard to write the song, conceding that it's "a lot less limiting than typing on the computer." EnTech has promised to distribute copies of Harris' number to radio stations around the country. The company also said it would be releasing Lead Sheet Writer, a music printer, in the near future. "That's something all computer musicians are waiting for," Bones remarked.

On another musical note, the breakdance group that helped develop Creative Software's *Break Street* game, The DeRoxy Crew, took first place in "Break '84" — Seattle's breakdance showdown. The six-member group won a trip to New York, where they probably learned enough new moves to warrant "Break Street II."

ROBOTS 'R'US

You may already have met Sammy Sands at your local piano bar. He works the "Gadget circuit," making stops in cities from Denver to Tampa Bay. The Sandman is best known for his unique brand of high-tech schmaltz—you see, Sammy's a robot.

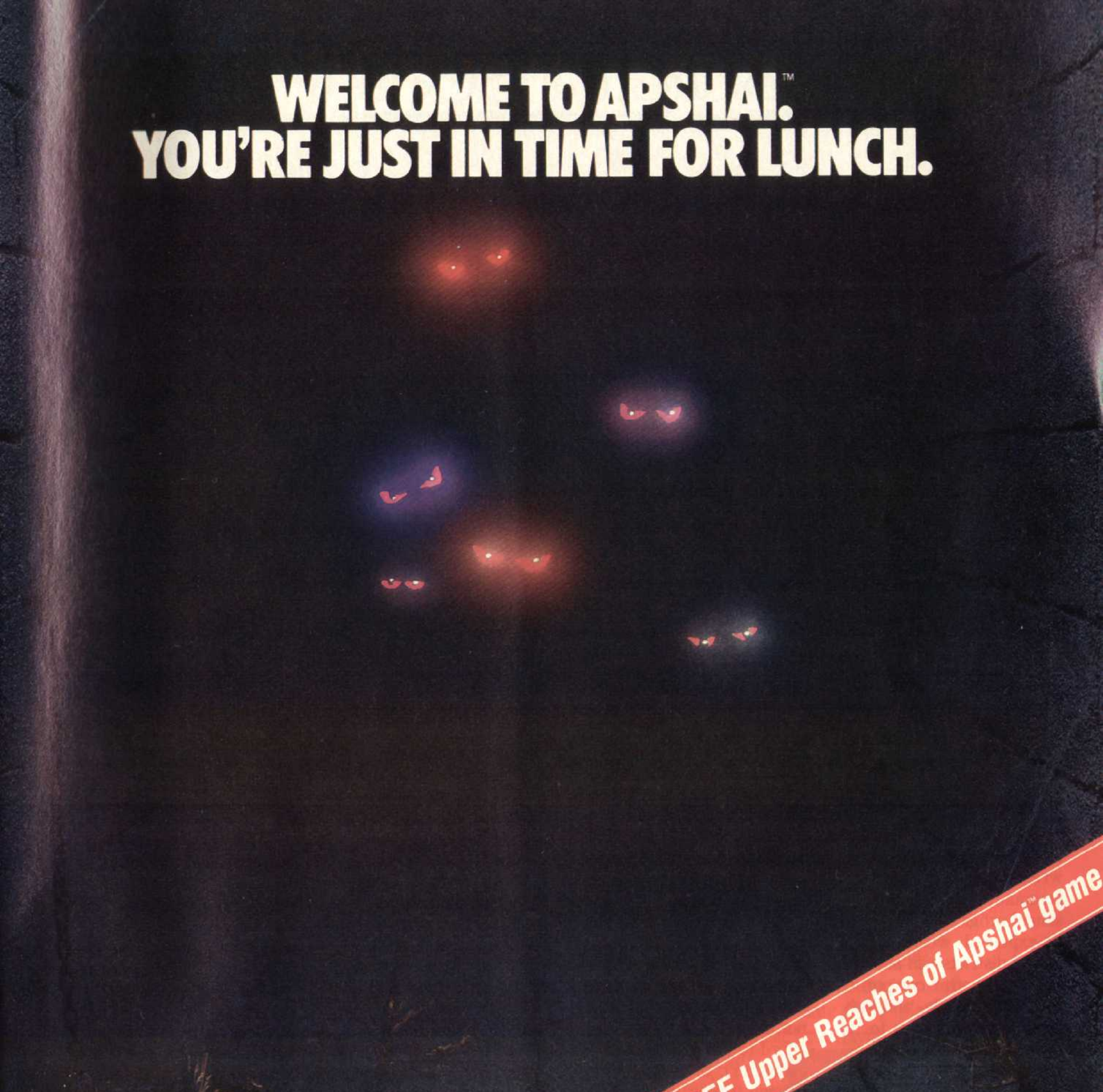
Robots seem to be popping up everywhere these days — in restaurants (like Gadgets), in factories, and, of course, in people's homes. "Eventually, personal robots will make personal computers look silly," says Mike Higgins, editor of Personal Robotics News. "But, right now, they're nothing more than electronic pets."

Apparently this hasn't escaped Nolan Bushnell, who has resurfaced with a new company, Axlon, and a new line of robot-like products. Already receiving attention are the Petsters or "electronic stuffed animals." A Catster, for instance, meows when it's stuck in a corner, purrs when it's petted, doesn't lick or scratch or require a litter box and eats only batteries. Microprocessor-based, the Catster and Dogster can perform up to 250 functions; both have furry coats, are light-activated and respond when called. Never one to eschew hyperbole, Bushnell has already predicted that the $100 Petsters will, in many cases, replace household pets. "We've been able to capture 80 percent of the functions of pets," says Atari's founder and the current Axlon president.

Axlon recently introduced several other robotic products, including A.G. Bear (for Alexander Graham), an electronic teddy bear, and Andy the Personality Robot, which can be programmed when connected to Atari XL and Apple II computers or the Commodore 64. Andy will

Hubotics' Rodney

WELCOME TO APSHAI.™ YOU'RE JUST IN TIME FOR LUNCH.



Boy, have you taken a wrong turn. One moment you're gathering treasure and the next you're being eyed like a side of beef.

You're in the world famous Temple of Apshai,™ the award-winning computer game that has set the standard by which other role-playing adventure games are judged.

Unlike other adventure games, your character grows stronger and more intelligent as you gain experience. You can even save your favorite character to use him in future adventures. And that might be a smart move, since it will take many tries to master the four different levels with over 200 rooms and collect the countless treasures, weapons, potions and spells scattered throughout. Along the way, you'd better watch your step – there are over 20 different types of monsters lurking about with hungry looks on their faces, all planning to make you their next meal.

If you think it sounds challenging, you haven't seen anything yet. With every Temple of Apshai* we will be including absolutely FREE "Upper Reaches of Apshai" with four more levels, another 150 chambers and of course, a fresh supply of hungry monsters. That's enough of a challenge to keep even the most experienced game player busy for months, maybe even years.

Available at your local retailer for the Apple, Atari, Commodore 64, and IBM home computers.

*Offer applies to specially marked boxes and is available in disk format only.

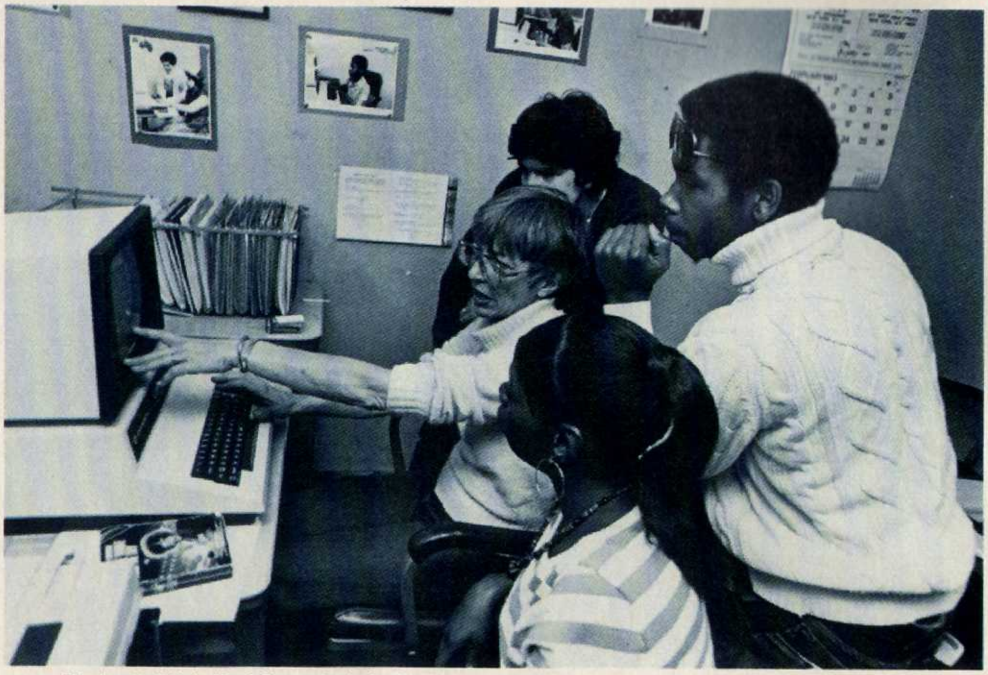
EPYX
Temple of Apshai

EPYX™ COMPUTER SOFTWARE

Strategy Games for the Action-Game Player sell for around $120.

Robots may be getting cheaper, but they're not getting much smarter, says Mike Higgins. "Until they are equipped with actual computers inside of them, they'll just continue to be gadgets." Hubotics's $3500 Hubot is the exception to Higgins's argument: it has a built-in CPM-compatible 64K computer, disk drive and 12-inch monitor.

Hubot is definitely catching on. PBS's *New Tech Times* series is giving away a Hubot to a viewer who best explains why he would like to adopt the 45-inch tall robot. And Hubot is appearing as a character on the NBC series, *Berrenger's*. His name? Rodney.



Playing to Win's Toni Stone (pointing) calls the computer equity-gap "an enormous problem."

PLAYING FAIR

The "equity gap" is an issue educators have been wrestling with ever since computers enrolled in school programs. As would be expected, wealthier school districts can afford more and better computers, while middle- and low-income districts have to settle for less or often no computers at all. This was one of the issues discussed at a recent conference, "The Education Uses of Microcomputers," sponsored by the Bank Street College in New York.

Toni Stone, executive director and founder of Playing to Win, which primarily operates a non-profit computer center located in Harlem, addressed the equity issue in the "Money and Micros" session. "I think we have an enormous problem," she told a group of educators. "If kids don't learn how to use computers now, they'll be handicapped for the rest of their education and lose out on countless employment opportunities. Even if they go back to school, like I did, they will still have lost so much time. We have to make people aware of how important this is."

Stone practices what she preaches. The Harlem computer center offers the community access to computers it would otherwise not have, for a price it can afford to pay ($2.50/hour/computer). In addition, Playing to Win, which is dedicated to promoting computer use among minorities, inmates, juvenile delinquents and "other people who are socially handicapped," has ongoing programs with the Fortune Society and the Spofford Juvenile Center in The Bronx and has just begun to work with ambulatory patients at Metropolitan Hospital.

One school district in Houston has adopted Playing to Win's principles and is offering a variety of programs, such as Computers Can, an after-school training center, and Techmobile, a classroom-on-wheels that makes stops at district schools. Similar to Computers Can is the Computer Connection, an access program for minority school districts in Alameda County, CA. And Atlanta is getting into the equity act with Project Micro, a program that the Southern Coalition for Educational Equity hopes will spread to other states.

According to Stone, the "greatest inequity area" is rural America. She's had a dream of renovating a Greyhound bus, stocking it with computers and taking her show on the road — to Indian reservations and Appalachian hamlets. "My kids don't want me to do it, because I'd be away," says Stone, "but I have this image of myself as the 'computer lady.' The bus would be a rolling Computerland. It would certainly get a lot of publicity."

If it's for the computer equity cause, then you can bet Toni Stone's wheels will always be turning.

INFOMART'S FAME GAME

Quick: who were the seven original inductees to Infomart's Information Processing Hall of Fame? Give up? Here's a hint: One is currently a senator from New Jersey. If you guessed Bill Bradley, you're thinking of the wrong Hall of Fame. The answer is Frank Lautenberg. His claim to fame? The senator founded the first worldwide computer service company, Automatic Data Process (ADP).

Okay, trivia hackers, who invented the integrated circuit? And which pair of doctors are credited with developing the first mainframe, the ENIAC? Know who wrote COBOL? Or who is considered the father of high end, plug-compatible computers and named a company after himself? Finally, there was a Dr. von Neuman who wrote the book on binary numbers — what's his first name (it rhymes with von)?

Science Fiction
Fahrenheit 451 · Ray Bradbury
010-10110-1-101
Science Fiction
Arthur C. Clarke RENDEZVOUS WITH RAMA
010-10110-1-101
FANTASY
DRAGONWORLD
BYRON PREISS, MICHAEL REAVES AND JOSEPH ZUCKER
010-10110-1-101
Science Fiction Adventure
MICHAEL CRICHTON
010-10110-1-101
FANTASY
SHADOWKEEP
ALAN DEAN FOSTER
010-10110-1-101
Science Fiction Adventure
STARMAN JONES
ROBERT A. HEINLEIN
010-10110-1-101

Booted up any good books lately?

RENDEZVOUS WITH RAMA
ARTHUR C. CLARKE
SHADOWKEEP
ALAN DEAN FOSTER
DRAGONWORLD
PREISS/REAVES
FAHRENHEIT 451
RAY BRADBURY
AMAZON
MICHAEL CRICHTON
TELARIUM

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Introducing Telarium™ interactive software.

Maybe you've wondered what kind of software a giant like Bradbury or Crichton or Clarke could dream up. Maybe you've wondered what it would be like to be the hero in one of their mind-boggling adventures.

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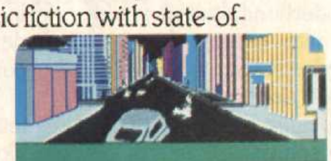

You are on Fifth Avenue between 57th and 58th street. Near you, a manhole cover is set into the pavement. East and west, buildings and other structures line the avenue.

Telarium. We give you more than great software.

We give you great books to boot.

TELARIUM™

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Bulletin Board

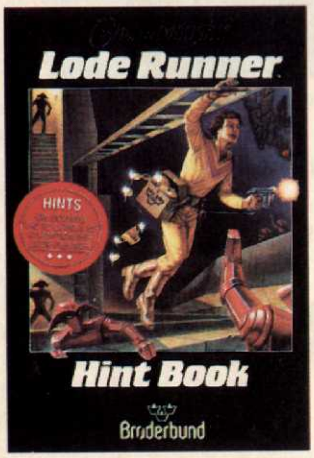
Notes from the Neighborhood

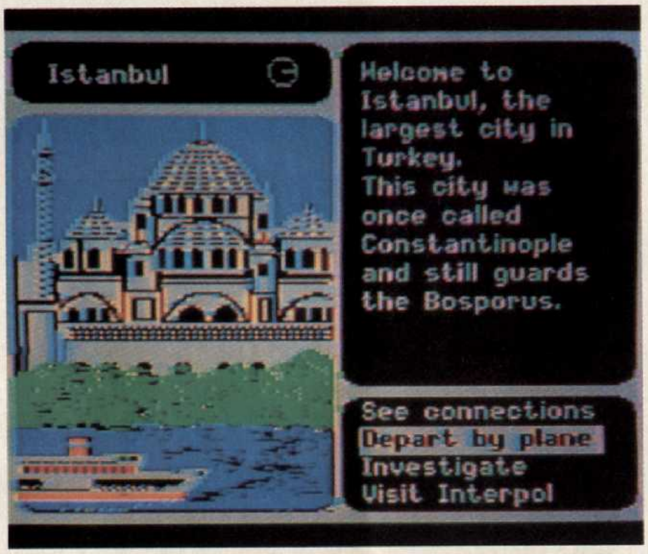
The answers: Jack St. Clair Kilby, Drs. John Mauchly and J. Presper Eckert, Commodore Grace Hopper, Gene Amdahl and John (bet you guessed Don). If you got all seven questions right, treat yourself to a trip to Dallas' Infomart, the information processing complex that opened to a throng of 25,000 visitors in January. This 1.5 million square-foot facility, which is modeled after London's legendary Crystal Palace (built in 1851 for the World's Fair), houses 225 computer, software, peripheral and telecommunications companies.

The Hall of Fame will announce its next round of inductees early in 1986. Any suggestions?

MORE HINTS

You thought you were pretty good when you slipped by and outsmarted the Bungeling guards in *Lode Runner,* so you went out and bought *Championship Load Runner.* Now you're stuck on the 17th level — and you've got 33 more to go, wise guy. Broderbund figured you'd run into some problems, so they're selling a "hint book" that supposedly "provides hints, not absolute solutions," and includes complete diagrams of every screen. It'll cost you $9.95.





Istanbul

Welcome to Istanbul, the largest city in Turkey. This city was once called Constantinople and still guards the Bosporus.

See connections
Depart by plane
Investigate
Visit Interpol

WHERE IN THE WORLD IS CARMEN SANDIEGO? (BRODERBUND)

To figure out *Where in the World Is Carmen Sandiego?* — another new Broderbund game — you'll need the *1985 World Almanac and Book of Facts* right by your computer. You see, Sandiego is an international thief who you'll be trying to track down when this mystery/geography program comes out this spring. Many of the clues about Sandiego and his nine other partners in crime are cleverly hidden in the *Almanac,* which comes with the disk.

This is the second release in Broderbund's "Explorations" series. *Welcome Aboard,* featuring The Muppets, was the first.

SHOWTIME

Apple is taking the Macintosh on the road. First stop in the MacWorld Expo was San Francisco in February; before 1985 is history, the Expo will touch down in Boston at the Bayside Center (August 21-23) and Dallas at Market Hall (October 17-19). About 100 exhibitors are expected to participate at each stop. Call (617) 329-7466 for more information.

The last weekend of April (25-28) is reserved for CompuShows, both in New York at the Nassau Coliseum (Long Island, NY) and in Virginia Beach at the Pavilion. The Maryland-based CompuShows travels from state to state (shows in Baltimore and Philadelphia have already been held this year), demonstrating new office and home computer hardware and software. For information on these shows as well as others scheduled for later this year (Tampa, Washington D.C., Atlanta, Denver and St. Paul), call (800) 368-2066.

The videotex industry will be celebrating its fifth anniversary when the major participants in this budding field meet from June 24-26 at Videotex '85 in New York. Call: (212) 279-8890.

Another growing field, computer graphics, will be the focus of three conferences. The National Computer Graphics Association's annual expo will take place from April 14-18 in Dallas at the Convention Center. The main event of the expo is expected to be the debut of Lucasfilm's *The Adventures of Andre and Wally B.*, a film short which demonstrates "computer synthesized motion blurred animation," as a part of the VideoGala on the 16th.

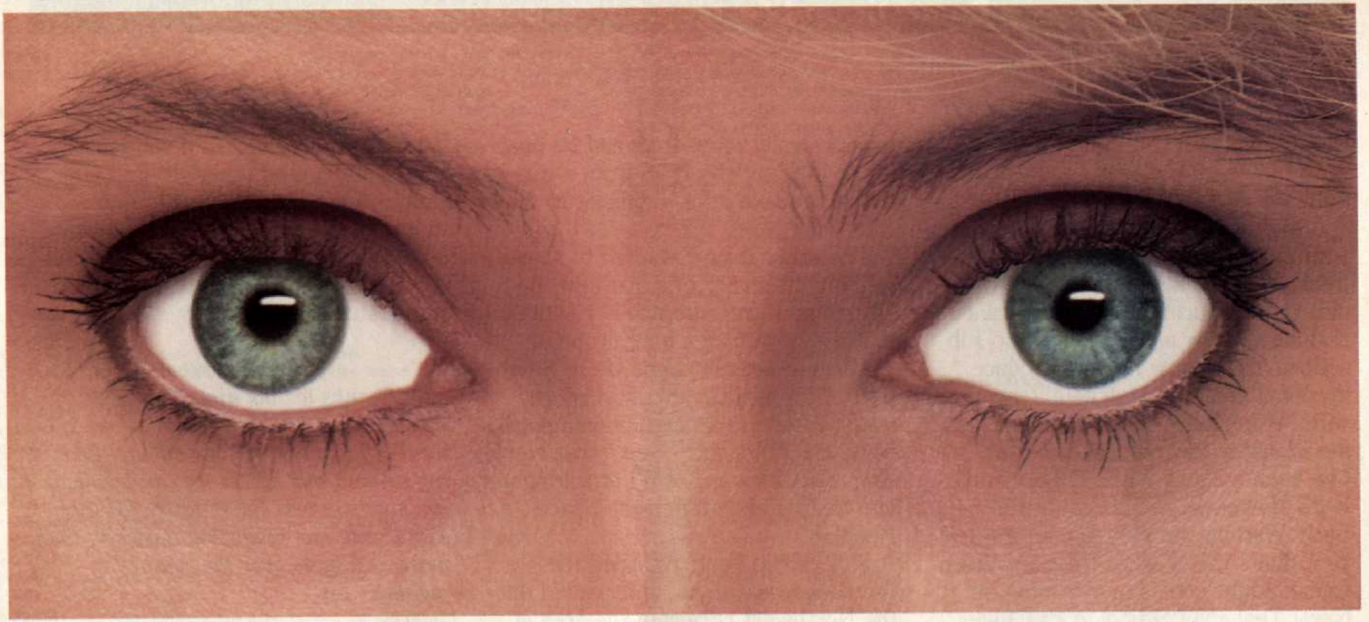
The two other NCGA conferences — Computer Graphics '85, West and East — will be held in Los Angeles at the Convention Center (June 25-27) and in Boston at the Bayside Center (August 13-15), respectively. For additional information, call: (703) 698-9600.

CONSTRUCTIVE CONTEST

Electronic Arts is sponsoring a contest for *Adventure Construction Set* gamemakers. Three graphic-text adventures will be selected from the entries and awarded prizes of $1000 each. EA also plans to take the winners' designs, plus another 15 to 20 "honorable mention" programs, and release a selection of them on disks that will be available to registered *ACS* owners only. Each disk will sell for less than $10.

"The idea," says EA's Bing Gordon, "is to create your own games and then trade them on our disks so you can play somebody else's game. This will basically be a *ACS* User's Group, with the only difference being you have the chance to be famous." **ce**

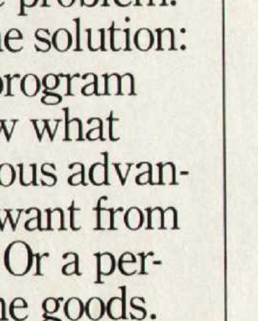
We'll Get You Inside Her Head.



The Rest Is Up To You.

It's a situation every guy has faced. There she is. The perfect woman. Or close enough. The problem: How to insert yourself into her psyche. The solution: Mind Prober.™ It's an ingenious software program from the Human Edge™ that lets you know what makes a person tick. And that's a tremendous advantage in figuring out how to get what you want from someone. Anyone. In a business situation. Or a personal situation. Mind Prober. It delivers the goods. What you do with them is up to you.

Available at fine computer and retail stores everywhere. Call 1-800-824-7325 (outside California 1-800-624-5227) for more information or the location of the nearest retailer.



Pick up the Mind Prober today. And who knows who'll you pick up tomorrow.

Mind Prober is another practical expert systems program from the Human Edge Software Corp.

Mind Prober™

Software That Lets You Read People Like A Book.

IBM Apple Macintosh Commodore

Line Feed

Domestic and Foreign Correspondence

CONFESSIONS OF A MONSTER

I want you to realize that not all of your readers are teenaged arcade freaks...There is at least one 30-year-old, highly educated, specially trained, real-life warrior arcade freak who subscribes also. Allow me to introduce myself. I'm Harry Molyneux (rhymes with "Waterloo"), but everyone calls me Monster (my tactical call sign). I've been a Naval Flight Officer in the E-2C Hawkeye, the Navy's Airborne Early Warning aircraft, and let me tell you, that's the World's Ultimate Video Game! Right now, I'm attending the Naval Test Pilot School in Pax River, Maryland.

I'm mad as hell about software piracy, a real blight on the industry. Your repeated condemnation of it and the excellent articles in the March issue deserve praise. I would like to offer my idea for a solution: cartridges.

How many 2600 games were ever duped by teenagers and given out to user groups? True, cartridges can be downloaded onto a diskette, and right now you can't put as much on a chip for as small a cost as you can on a floppy, but technology is closing the gap. I seriously believe that if the industry concentrated on building computers with cartridge capability (like the IBM PCjr), and if the software manufacturers did more with this format, the incidence of piracy would diminish significantly. It should be possible to lock out the DOS from a cartridge to make it very difficult to duplicate.

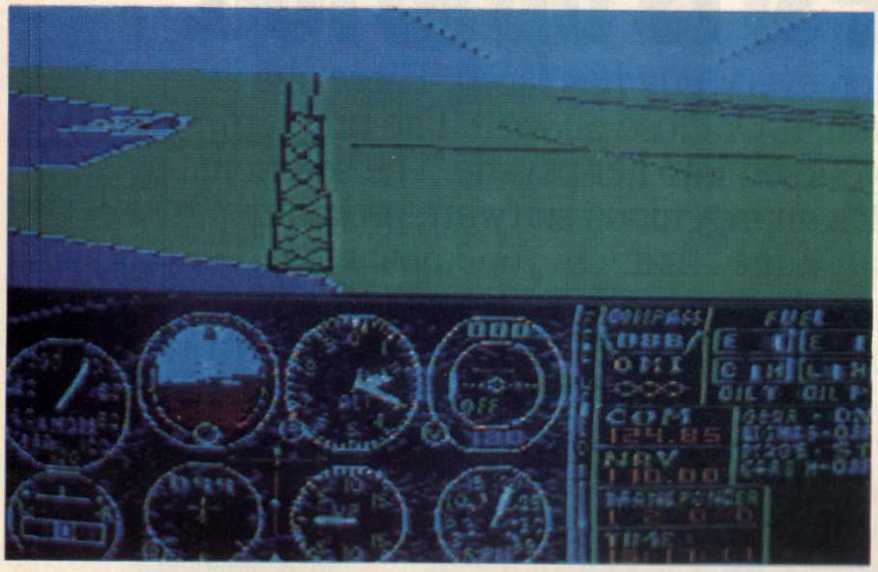
The other thing I wanted to share was my discovery of a quirk on the Microsoft *Flight Simulator*. I noticed that the coordinates for Europe in 1917 were actually somewhere Southeast of the Seattle area grid coordinates listed in the instruction manual. Naturally I thought, "Gee, what would happen if I flew my WWI attack fighter into Seattle and strafed the Space Needle?"

So I climbed out, retarded the throttles to save gas, and headed out the Northwest corner of the area at 9000 feet. Switching to an over-the-rudder view, I watched the mountains shrinking behind, when suddenly they vanished. A lone aircraft appeared, on the friendly side of the river. Without provocation, he attempted to kill me, so I wasted him. Then I noticed something really bizarre. The airfields were missing! I discovered a chain of these phantom areas, each with a single fighter protecting it, and no place to land and get gas. I flamed out before seeing Seattle, and still don't know if such a voyage is possible.

If you really want to impress someone with your battle prowess, try this: Land in hostile territory, declare war, and shoot the enemy planes as they taxi towards you. Their fighter algorithm always seeks to put them at or below your altitude, so if you land, they will too, and taxi right into your sights. After picking off all six of them, you're free to fly low and slow over the high point value targets without harassment, dealing out death and destruction from above.

Monster
Tatuxent River, MD

Ed: Thanks for the hints. All of us here are glad you're a friend — we wouldn't want to be your enemy! Looking around our offices we can tell there are plenty of over-30 software fans. You'll find our magazine reflecting this more and more over the coming months.



NEWS FROM THE EDGE

I have just had a call from a reader of your magazine who lives in the L.A. area, who was trying desperately to get hold of a copy of our game, *Quo Vadis*. He mentioned that your offices did not seem to have an address for us in the U.S. Please ask readers to contact us at:

The Edge
Colby
1710 Calle de los Alamos
San Clemente, CA 92672

Both of our current games (*Quo Vadis* and *Firequest*) sell for $29.95 and are available on disk in the U.S. only.

Dr. T. Langdell
The Edge

NOBODY'S PERFECT

I would like to thank you for the great mention you gave our product, the FingerPrint Interface Card ("New Products," *EG*, Feb.). I do, however, have a few corrections I would like to make.

First, the FingerPrint is not a "software driven unit." It is, in fact, independent of software. Whether for text- or arcade-style entertainment FingerPrint can freeze the action and produce hard copy at any stage, even if your software lacks a print function.

Second, you mentioned that the FingerPrint plugs into expansion slot 1. Our card can be plugged into any slot, and function perfectly.

Looking for Computer Entertainment?

If you have trouble finding COMPUTER ENTERTAINMENT at your local newsstand or want to know where to send a friend to pick up a copy, the following will help. It's a list of retail stores across the country that carry COMPUTER ENTERTAINMENT every month.

ALABAMA
Video Box Office, Birmingham

ALASKA
Byte Store, Juneau

ARIZONA
CG Appliance TV & Video, Casa Grande
Hollywood Connection, Phoenix

ARKANSAS
National Video #04001, North Little Rock
Pine Bluff Video, Pine Bluff

CALIFORNIA
Video Station, Alameda
Video Cross Roads, Anaheim
C & W Video, Carmarillo
Video Connection, Citrus Hts.
Video Station, El Monte
The Works, Eureka
Coast Video, Fountain Valley
Video Station, Fremont
Video To Go, Gardena
Hip Pocket Book Store, Garden Grove
Happy Home Merchandiser, Granada Hills
Picture Show, Huntington Beach
Video Station, Laguna Hills
Back Stage Video, Long Beach
KK Sight & Sound, Los Angeles
Pirates Cove, Monterey Park
20th Century Video, Newark
Video Plus, Novato
Electronic Games, Orange
Sound Machine, Orange
Software Central, Pasadena
In Home Video, Riverside
Video Station, Rowland Hts.
Video Games N Gadgets, Sacramento
Videoland, San Francisco
Games Gags Gifts, Tahoe City
Video Etc., West Covina

COLORADO
Sweet's Tapes & Records, Aruada
American Home Theater, Colorado Springs
Guys N Dolls Video, Denver
Program Store #7806, Littleton

CONNECTICUT
Video Connection, Bridgeport
Video Studio II, East Winsor
Video Connection, Fairfield
Nostalgia World, North Haven

DELAWARE
Video Station, Wilmington

FLORIDA
Electronics Depot Inc., Alamonte Springs
Peace Chief Sound Center, Bradenton
Fort Myers Video Movie Center, Fort Myers
Computer Image Software Centre, Miami
The Crossings Video Shop Inc., Miami
Jeff Vid Inc./DBA Video Club Center, Miami
Orange Blossom Hobbies, Miami
PSL Electronics Inc., Miami
Video Trends, Winter Haven

GEORGIA
All Star Electronics, Atlanta
Video Connection, Marietta

HAWAII
Data I Microcomputers, Honolulu

DAHO
Mountain Video, Black Foot

ILLINOIS
BAC Video Saw Mart, Belleville
Devon Hobbymodels Inc., Chicago
TV Repair, Chicago
Video Tape Gallery, Chicago
Videocourt, Cicero
Glenwood Distributors, Collinsville
Software N Stuff, Collinsville
Countryside Home Video, Countryside
Electronic Playground, Decatur
Video Dimensions, Des Plaines
Video Show, Des Plaines
Video Comp. Inc., Evanston
Circle Communications, Forest Park
Video Basics Inc., Joliet
Kenilworth Video, Kenilworth
Video Rangers Inc., Morton Grove
RJ Hobby & Electronic Center, Murphysboro
Classic Video, Oak Lawn
Sound Warehouse, Oak Lawn
New World Games, Rockford
Video To You Inc., Shaumburg
Toytown, Springfield
Video Hotline, Winnetka
Pace Micro Software, Wooddale

INDIANA
World of Video, Indianapolis
Video World, Kokomo
Video Place, Merrillville
Video Exchange, Mishawaka

IOWA
Video Island Ltd., Davenport

KANSAS
Hollywood At Home, Overland Park

KENTUCKY
Videovisions, Louisville

LOUISIANA
Ann's Video Junction, Slidell

MAINE
Sound Track, Sanford

MARYLAND
Video Connection, Beltsville
Video Connection, Bowie
Clinton Video Ctr., Clinton
Video Connection, Cockeysville
Video Works, Ellicott City
Video Connection, Olney
Reistertown Video Inc., Reistertown
Video Outlet, Silver Springs
Computer Connection, Taneytown
Greetings & Readings, Towson
Computer Answers & SVC, Waldolf

MASSACHUSETTS
Acton Video, Acton
Game-Tech, Arlington
Name Of The Game, Boston
Video Connection, Burlington
Act 1 Video Inc., Dracut
Video Plus, Framingham
Video Exchange, North Andover
Taylor Sound Inc., Pittsfield
Video Paradise, Plymouth
Freeze Frame Inc., Saugus
Video Barn, Somerville
TV Game Traders, Springfield
Good Vibrations, Stoughton

MICHIGAN
Edge Connector, Clio
Motor City Drugs & Video, Dearborn
Alexander's Book Store, Detroit
Mousetrap Video, Detroit
Just Software, East Detroit
Video Connection, Farmington Hills
Video Today, Holland
Home Video Outlet, Lansing
Video Phile, Lapeer
Video Connection #140, Madison Hts.
Signal Service, Napoleon
Pro Video, Okemos
Chi Town Records, Oscoda
New Horizon Book Shop, Roseville
Mettron, Saint Clair Shores
Record Cellar, Sterling Hts.
Maxaron Corp., Warren
Rite Way Ents., Warren
Top Stop T Shirt Co., Warren

MINNESOTA
Adventures In Video, Crystal
Games By James, Edina
Discount Video, Minneapolis
Games By James, Minnetonka

MISSISSIPPI
Take-One Video, Long Beach

MISSOURI
National Video, Kansas City
Curt's Computers, Palmyra
Harvest Plaza Video, St. Charles
Liberty Sound, St. Joseph

MONTANA
Curtis Mathes Entertainment, Billings

NEVADA
IC Electronics, Las Vegas

NEW HAMPSHIRE
Video Biz of New Hampshire, Bedford
Home Video Shop, Seabrook
Video Station Inc., South Merrimack

NEW JERSEY
Software City, Bergenfield
Video Aids Inc., Bloomfield
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Trash Or Treasure, Budd Lake
Gemini Enterprises, Cedar Knolls
Video Connection, Cherry Hill
O'Johnnies, Clark
Accent On Video, Closter
Video Store, Elmwood Park
Video Trek, Fort Lee
Camera Video Showplace, Freehold
Nu-Video, Lakewood
Video Junction Inc., Leonia
Video Home Center, Maralapan
Video Track, Marlboro
DC Video Inc., Manasquan
Ippy's, Manasquan
Video Studio, Metuchen
Video Access, North Bergen
Video Fantasy, Palisades Park
Stan's Discount Energy & Video, Penns Grove
Record Record, Pompton Lakes
Software City, Ridgefield
Video Connection, Somerset
Video Station, Somerset
Software Store Inc., Somerville
Video Galaxy, Turnerville
Captain Video Inc., Vineland
Opening Night Video, Wayne
Video Odyssey Inc., Woodbridge
Video Valance, Woodridge

NEW YORK
Video Connection, Albany
Videovision, Baldwin
Future Video, Bayside
Video Visions, Bayside
Videotronics, Bronx
Discount Book Warehouse, Brooklyn
Ekron Systems, Brooklyn
Flatbush Video, Brooklyn
Parkway Video & Electronics, Brooklyn
Taso's Video Fair, Brooklyn
Video Store, Brooklyn
Video Connection, Cedarhurst
Moriches Vantage Mart, Center Moriches
Video Emporium, Coram
Anytime Video, Deer Park
Video Connection, Delmar
Video Connection, Derby
Video Connection, East Northport
Video Quest, Elmont
Tanel Electronics, Floral Park
Video Network, Floral Park
Audio Video Barn, Blushing
Video Network Center, Flushing
Video Wizard Inc., Flushing
Magic Video, Forest Hills
Video Statio, Forest Hills
NSB Video, Franklin Square
Big Apple Video, Glendale
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Video Enterprise, Kenmore
ACE Camera Shop, Lawrence
Castle Video Inc., Lindenhurst
Kaleidoscope, Liverpool
Delman Television Co., Long Beach
L V R Video, Manhasset
Ankar Video Inc., Merrick
Video Connection, Merrick
Video Connection, Middle Village
HM Electronics, Nanuet
Captain Video, New City
Future Video, New Hyde Park
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Ozone Park Video, Ozone Park
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Video Connection, Johnston
Video City, Providence

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Carolina Video Center Inc., Charleston
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All That's Video, Spartanburg

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Radio Service Center, Nashville
Video World, Nashville
Totally Video, Smyrna
Sneaky Snakes Elect., Somerville

TEXAS
TV Center, Abilene
Pantego TV, Arlington
Vid-Com, Brownsville
Video Rainbow, Forth Worth
Wedgewood Rental, Fort Worth
Audio Video Plus, Houston
VI-AM Video & Bookstore, Houston
TV Games Limited, Midland
M & M Elect. Sales & SVC, Synder
Lonestar Video Rentals, Vidor

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Video Connection, Brattleboro

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WASHINGTON
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Kent Video & Computers, Kent
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WEST VIRGINIA
Computers Plus Inc., Charleston
Tronix, Charleston

WISCONSIN
Video Exchange, Glendale
Phantasy Age Inc., Lacrosse
Total Eclipse, Mehomonee Falls
Ford Theatre Home Video, Racine
Galaxy TV Games, Racine
Drakes Super Valu, Salem
Video Place, South Milwaukee

WYOMING
Clark Co., Cheyenne

CANADA
Video Games Galore, Courtney, British Columbia
Home & Business Computer Ctr., Mississauga, Ontario
Future Shop, Vancourver, British Columbia
Riverside Products, Whitehorse, Yukon Territory
Red River Book Shop, Winnipeg, Manitoba

Line Feed

Domestic and Foreign Correspondence

Finally, the 800 number you listed is no longer in service. We can be reached in Miami at (305) 592-7522. Your readers can give us a call and we will help find the dealer nearest them.

Thank you once again.

Michael Sacks
Thirdware Computer Products
Miami, FL

MAIL CALL

In the October issue of EG, you said that the 5200 is obsolete. Well, I called Atari and they told me that they are going to make the 5200 through 1985, and if there is enough demand for new 5200 software they will release new game titles. You can write Atari and demand new software at this address:

Atari Corp.
390 Caribbian Dr.
Sunnyvale, CA 94089

I hope every 5200 owner will write Atari, so the 5200 will live again.

Humberto Gomez
Cleveland, OH

Ed: Good luck — judging from the volume of letters we keep getting about the Atari change-over, there are still plenty of gamers in limbo.

ARCADING ABROAD

I recently went on a camping trip in Europe. Since my hobby is electronic gaming, I thought you might like a rundown on the scene across the ocean.

In Holland, they had plenty of arcades and lots of new games. There were several spin-offs of such favorites as *Centipede*, with the same play mechanic, but different on-screen objects. In Sweden, I put down two Krona for a game I thought was *Super Cobra.* The firing pillboxes suddenly turned into moving tanks, which fired a lot quicker than normal. I should have known, because the control panel was homemade.

The rate of exchange in Germany was such that it cost at least 40¢ a game. Austria had a few scattered *Space Invaders* machines in the cafes, but I found no games in Czechoslovakia, Yugoslavia, or Bulgaria.

In Portugal, it only cost 10¢ to play, but there were no new games. France had some good games, and they were 15¢ each. Games in cafes were usually twice as expensive, and arcades are only found in large cities.

My conclusion is this: If you want the newest, best games, the best conditions, and the biggest variety, you can find it right here in the U.S.A. .

Greg Doubek
Address Unkown

Ed: If it's Tuesday, this must be Pac-Man.

WE, TOO, ARE ASTOUNDED

I have subscribed to *EG* for three years now, and I need to comment on your March issue. Right now, you are at your peak. I absolutely love the wider section for computer gaming, the game of the month, and the inclusion of the price of each computer game. Thank you to the utmost. Wow. I didn't think such emotion could be expressed on paper, but I mean it all.

J. Harrell
Darien, CT

Ed: That's where we're going. For these kind words, much thanks.

PIRATE'S REPLY

Your article entitled "Software Piracy" (EG, March) offended me, because you make hackers look like a public enemy. I feel that you don't realize what percentage of your readers are considered "pirates," "hackers," and "software muggers."

Do you think this article will help stop the "hacking problem?" If you do, you're wrong. I have formed an alliance with every hacker I know to fight back against your article by dropping our subscriptions unless you publish an apology in your next issue.

If you refuse, consider yourself out of business.

Agent Orange
(No return address)

Ed: If you reread the article, you'll see that we distinguish between hackers, who foil protection devices for the challenge, and those who copy programs for profit. Hackers have a (mostly) constructive effect on computing; pirates and muggers are a destructive force. Which are you?

GLAD TO OBLIGE

I recently reread your October issue, and your new feature, "Game of the Month" really appealed to me. While reading the biography of Lord British (Richard Garriot), I noticed that he belongs to a group known as the Society for Creative Anachronism. Perhaps you could give me some information on this organization.

Paul Manjourides
La Puente, CA

Ed: The Society for Creative Anachronism is an organization dedicated to the study of medieval life by recreating tournaments and feasts. You can get more information and an application for membership by writing:

Society for Creative Anachronism
P.O. Box 743
Milpitas, CA 95035

They ask that you enclose $1 to cover mailing costs.

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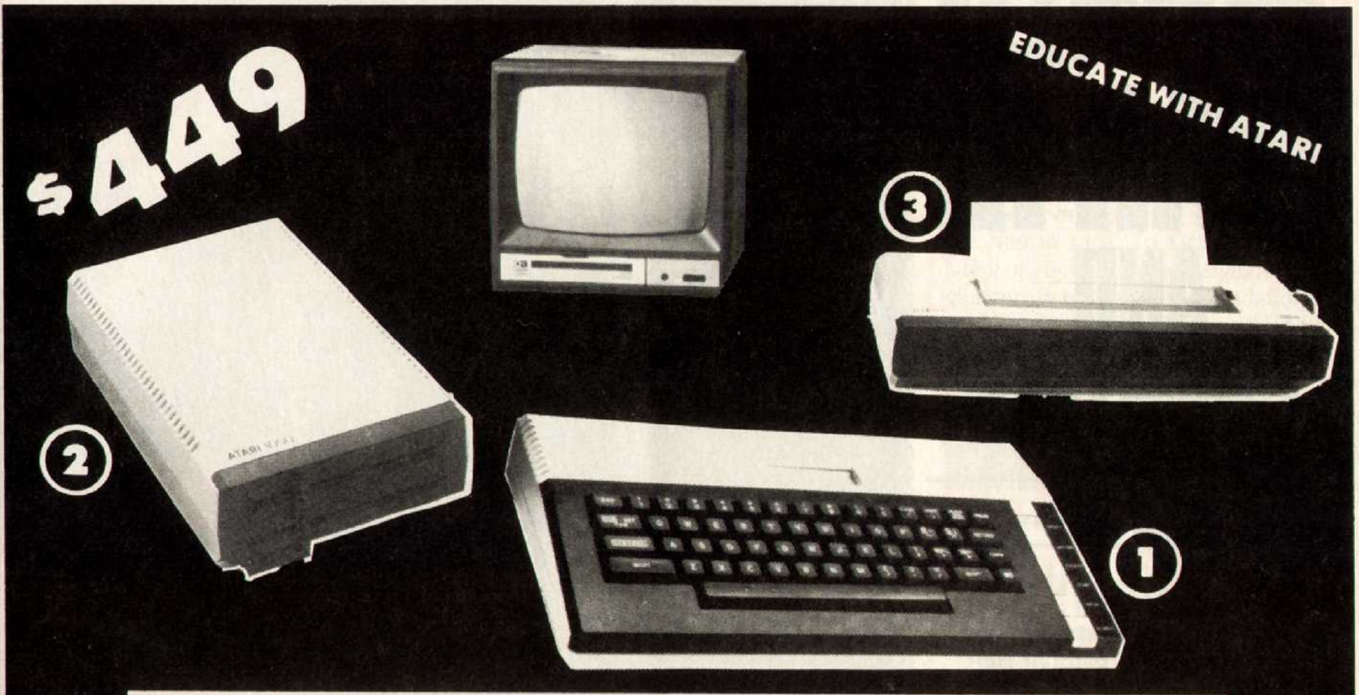

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WORLD WAR III AND COUNTING

By STEVE DITLEA

"War is a matter of vital importance to the State; the province of life and death; the road to survival or ruin. It is mandatory that it be thoroughly studied."
—Sun Tzu, Fifth Century B.C.

"The only program we have is MAD — Mutual Assured Destruction. And why don't we have MAS instead — Mutual Assured Security."
—Ronald Reagan, 1985

"The problem of nuclear war is being handled by the American body politic in a simple-minded fashion."
—Chris Crawford, 1985

One of the great cliches of today's political discussion likens war and peace to a grandiose game. The refrain in your local newspaper and on television routinely includes phrases like: "the high-stakes nuclear contest," "calling their bluff" and "if somebody does cheat." Of course, war has traditionally

been symbolized by games of strategy, from Go and Chess, to modern-day board and computer games. And yes, every nation has its War College that teaches its officers how to win at war games.

So why haven't there been games that symbolize the intricacies of waging peace and avoiding conflict? Surely, (as politicians and pundits might say) the stakes are high enough — the survival of the human race. In fact, a trio of the latest computer games signals the beginning of a new genre of simulations that could raise public awareness and eventually lead to new strategies for peace. Titled *The Ancient Art of War*, *The Other Side*, and *Arms Race*, they are the first of what *Arms Race* author Chris Crawford calls "Un-War Games."

> ***"To subdue the enemy without fighting is the acme of skill."***

Even if they don't speed up talks on SALT III, nor bring down next year's defense budget, they may well represent a quantum leap in the art of computer games, dealing with subtleties and moral complications instead of mere shoot-'em-ups or blitz-'em downs. The simulation of real-time tactical dilemmas in the avoidance of senseless destruction also turns out to be a most fitting use of personal electronic computers, which had their origins in the darkest days of World War II.

Written for different personal computers — IBM PC, Apple II and Macintosh — in very different styles, the first of the

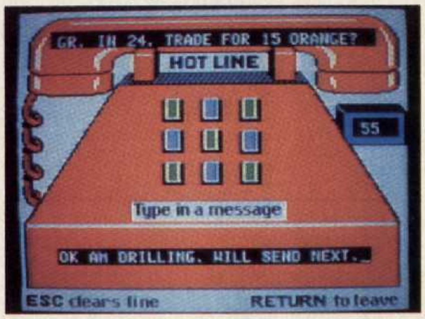
Un-War Games reflect the variety and complexity of conflict avoidance. Each creates a realistic environment that is entertaining and emotionally involving. As of this writing, final versions of *The Other Side* and *Arms Race* had not been locked in, so details of gameplay may still change.

CAPTURE, NOT CONQUER

Sun Tzu's Chinese classic, *The Art of War*, is the oldest surviving book of military strategy. Written around the year 400 B.C., this slim volume would inspire Genghis Khan, Napoleon and Mao Tse Tung. "The Art of War" is also the earliest book of game theory. In one remarkable passage Sun Tzu, a victorious general in the Chinese kingdom of Wu, discloses his keys to victory:

> Now if the estimates made in the temple before hostilities indicate victory it is because calculations show one's strength to be superior to that of the enemy; if they indicate defeat, it is because calculations show that one is inferior. With many calculations, one can win; with few one cannot. How much less chance of victory has one who makes none at all! By this means I examine the situation and the outcome will be apparent.

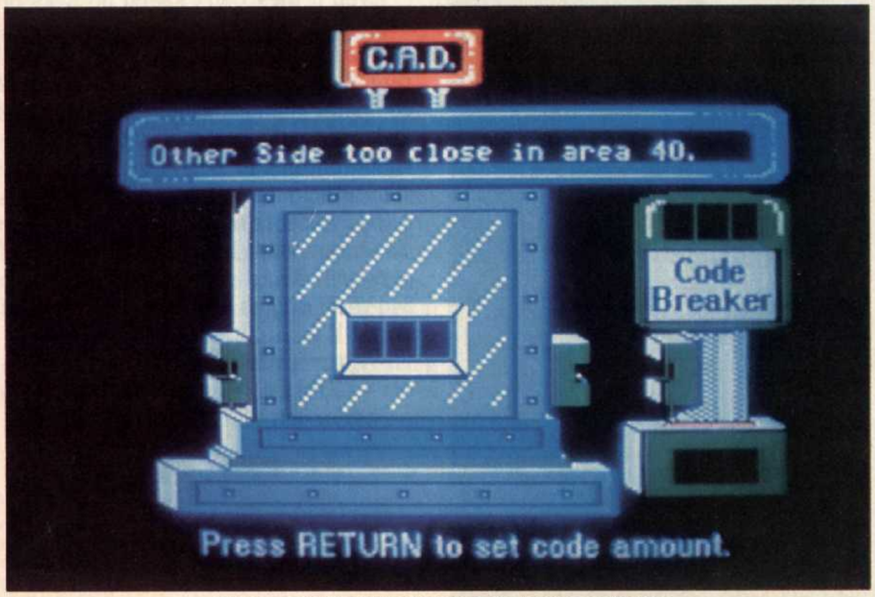
By weighing numerical factors for such variables as weather, terrain, command and organization, Sun Tzu created a mathematical model for victory on the battlefield. Among his winning parameters: "When ten to the enemy's one, surround him. When five times his strength, attack him. If double his strength, divide him. If weaker numerically, be capable of withdrawing."


The Other Side's hotline.

GR. IN 24. TRADE FOR 15 ORANGE?

OK AM DRILLING. WILL SEND NEXT._

Now Sun Tzu's classic has been translated into a computer game, an animated implementation by Dave and Barry Murray. *The Ancient Art of War*, published by Broderbund for the IBM PC and PCjr and priced at $44.95, is faithful to the spirit of Sun Tzu's classic, including his maxim that "to subdue the enemy without fighting is the acme of skill." This may well be the most visually attractive strategic war game yet put on a personal computer, yet *The Ancient Art of War* is most challenging when a player tries to master what the superb manual describes as "the art of fighting without fighting." In a passage reminiscent of Sun Tzu, the Murray brothers of Olympia, Washington advise: "the best victory is not to defeat the enemy by battling his squads and elminating all his men, but to defeat him with as few battles as possible."


This generation of war games stresses negotiation.

Other Side too close in area 40.

Press RETURN to set code amount.

As soon as *The Ancient Art of War* starts up, you can see that this is not just another war game. The title screen is accompanied by a musical theme that sounds like "Jaws Goes Oriental." With the screen flashing the words "Go To War," you press RETURN and a beautifully animated scroll unfolds to display the titles of the eleven different campaigns offered to the player. Choose from among mythic or historical scenarios like "The Contest of The Gods," "Sherwood Forest" and "Custer's Last Stand;" other scrolls will unfold to tell the tale and relate the rules of the campaign. Then you are offered a choice of opponents depicted in a cartoon style reminiscent of early *Mad* magazine; Crazy Ivan, Alexander The Great, Julius Caesar, and even Sun Tzu himself are among your eight possible enemies, each with a different fighting style.

The next screen is the war map, a smooth-scrolling depiction of terrain and opposing armies. The game's strategic level involves moving troops and supplying formations which is executed by a real-time animation system (with four selectable speeds) that elevates the state of the art of personal computer games. And this is only half the story. *The Ancient Art of War* also features a tactical level. When armies engage in battle, a zoom option changes the display to a close-up of hand-to-hand combat, again in splendid animation, with you in command of your troops. Of course, these visuals provide a strong temptation to play the game for maximum slaughter, but seeing your graceful archers slaughtered by a bunch of barbarians just once should be reason enough to start you on the path of conflict avoidance.

"How the game is played probably says more about the person playing than about the game itself," notes Barry Murray. "We wanted to create a war game that was realistic, so there's no incentive not to fight. That's up to the player." Barry is a former air traffic controller, turned game designer with his brother under the Everyware banner (their previous hit was the animated knock-out *Championship Boxing*, published by Sierra On-Line). When he decided to tackle a combat game, he read more than

30 books on war strategy. While doing this research he came across Sun Tzu's *The Art of War.*

"Sun Tzu felt that complete destruction of an enemy was counterproductive," Barry Murray points out. "So we made the perfect answer to the game not to fight at all." The secret to winning (in most cases) is to mobilize a strong force against a weak enemy force.

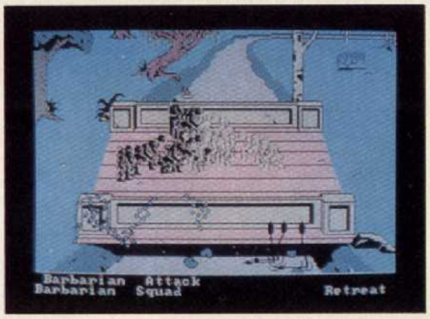
According to Dave Murray, who did most of the actual programming while Barry concentrated on game design and graphics, it is quite possible to force your opponent to surrender in the face of overwhelming numbers. But those numbers must take into account actual troop count, troop condition (food and fatigue are important factors, with a mere 20% difference in condition making an opponent twice as strong), the type of troops (barbarians make mincemeat of archers, knights slay barbarians, archers puncture knights) and the computerized opponent's individual style (Athena is least likely to surrender, Sun Tzu is the most benevolent but also hardest to beat). In one of the game's campaigns, "The Elusive Spy," you are outnumbered 100 to 1 and have no choice but to employ stealth and avoidance to capture the enemy's flag.

The goal in all the different scenarios is the capture of an opponent's flag, implicitly opening the way for noncombat solutions. Such an outcome is most likely in the first campaign, "The Race For The Flags." Should you tire of the existing scenarios, *The Ancient Art of War*'s game generator feature allows you to create your own war map, armies, rules and campaign story. Whether or not a scenario lends itself to noncombative resolution, the choice is yours.

PRISONER'S DILEMMA

Ace game designer Tom Snyder agrees that war games are conceptually simpler to write than peace games. "The payoff is so easy in war games," he remarks. Snyder knows firsthand about the problems of designing an un-war game, having done 197 separate versions of his latest magnum opus, an exercise in international conflict resolution, titled *The Other Side.*

Broderbund's entry: *Art of War*



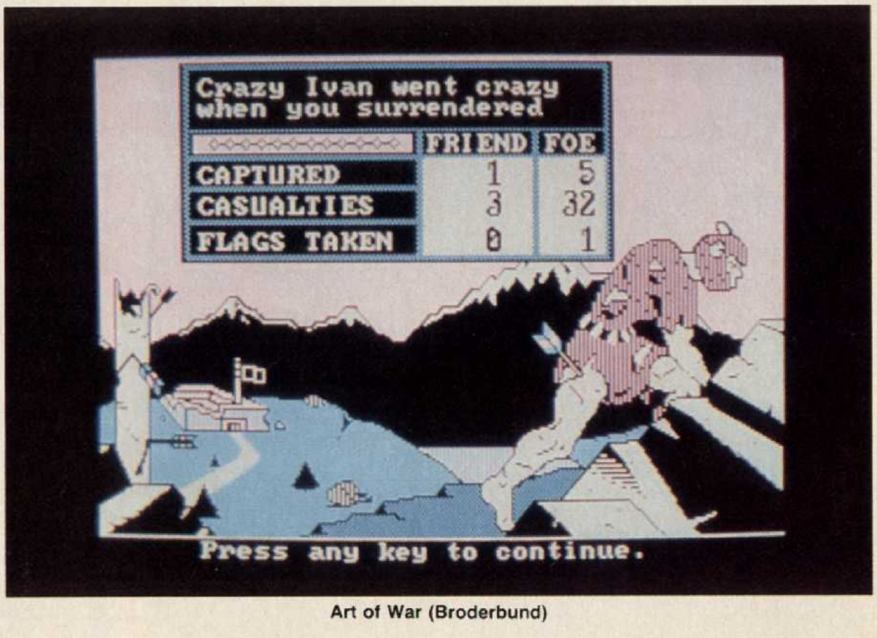
Known for multi-player educational games like *Snooper Troops* and *Bannercatch,* Snyder has created a pacifistic simulation which embodies a number of important firsts, both personal and industry-wide. For Snyder himself, this is not only his first explicitly peace-oriented game, but also his initial attempt at self-publishing under his corporate identity, Tom Snyder Productions, Inc. Happily published in the past by such top-notch firms as Spinnaker, Scarborough and Scholastic, the Cambridge, Massachusetts-based former school teacher opted to go his own way to protect the integrity of his newest concept. "I didn't want pressure from a publisher to write a better war game or a solo game," he explains.

Intrinsic to the theme of *The Other Side* is the fact that it must be played by two teams either on one computer or on two machines in different locations. Computers can be linked by modem and telephone line, or — in yet another innovation — via a special cable (included in the package) which hooks up from joystick port to joystick port. Written for Apple II computers and scheduled for an April release, *The Other Side* comes in a deluxe $79.95 package complete with two game disks, maps, display boards and teachers' guides on conflict resolution. The game is being initially targeted for school use, but Snyder hopes to reach children and adults across the U.S. and even around the world.

He was inspired to write his un-war game after seeing the TV docudrama, "The Day After," which graphically portrayed the aftermath of a nuclear attack on a midwestern city. "I realized that we as a nation are not trained to resolve conflicts, domestic or international," he recalls. "I thought it might be a good idea to popularize the notion of conflict resolution."

As with most of his games, Tom Snyder began the design process by writing out the kind of dialogue he hoped to hear between players. For *The Other Side,* this would relate to negotiating strategies and figuring out an opponent's intentions. The next step was to create a chart of information flow in the game. With an environment sketched out — in this case, two generic super powers trying to complete a bridge between them, while vying for scarce red, green, and blue fuels that power their economies — Snyder then illustrated screens and basic gameplay on a storyboard. To de-

Continued on page 77



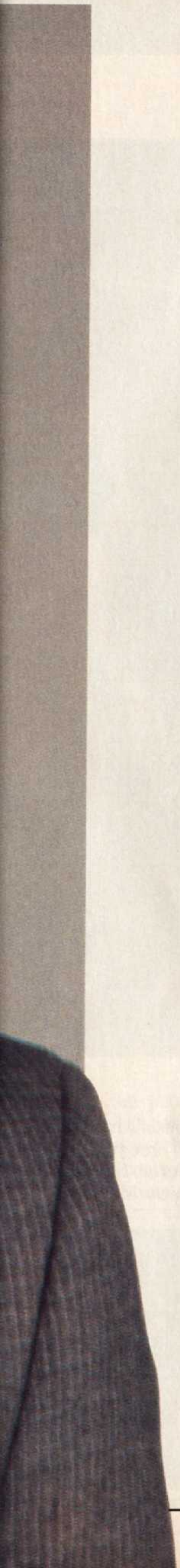
Crazy Ivan went crazy
when you surrendered

	FRIEND	FOE
CAPTURED	1	5
CASUALTIES	3	32
FLAGS TAKEN	0	1

Press any key to continue.

Art of War (Broderbund)

Software designer Tom Synder



Hippie in Yuppie's Clothing

"I'm the only person who's going to be able to make a difference in the next couple of years, because everyone else is still thinking of computers as some kind of calculator."

By MARC BERMAN

NEW YORK — It was the final day of one of those dull computer conferences, held at the Bank Street College of Education, an upper-crust private school on Manhattan's upper West Side. A closing panel discussion was attempting to put the whole proceeding in perspective. An audience of so-called progressive educators — silver-haired women wearing square glasses and sweater vests, bearded men in turtlenecks and tweed jackets — were listening attentively. They had been oohing and aahing over new educational software and proposed training methods for two days.

Dick Khaleel, the president of Scholastic Software, was explaining the panic being felt by many software publishers, even the larger outfits like Atari, HESWare, CBS, Activision, Sirius and Synapse, which control the lion's share of a $100 million business. He said the educational market was as treacherous for publishers as it was for educators.

When Khaleel finished, the moderator turned the microphone over to another panelist, who was in the process of yawning and rolling up his sleeves. This guy, his hair needing a trim, his collar wide open, his sport jacket a bright shade of orange, definitely didn't look the part. He didn't appear to be your typical educator, prepared to toss more platitudes to an audience hungry for, er, validation. This was Tom Snyder of Tom Snyder Productions (TSP), the software company. A former teacher, the 35-year-old Snyder knows about polite platitudes, even though his public persona has proved quite the opposite. On previous panels, Snyder has played the wisecracking, gum-chewing disinterested kid in the third row, who's either staring out the window, reading *Heavy Metal* or being sent off to the principal's office again. You could almost see his brain ticking over when the moderator asked, "As a software creator, is that the way you see it?"

Snyder shot the back row an ingenuous look and inquired, "Can you hear me?" Then he held up his notes and mumbled to himself. The audience began to giggle. "Here's a cynical statement," he smirked. "Thank God the dogs are finally getting enough cheese."

Hippie

Tom Snyder had spoken and now the room was in an uproar, for it understood his in-joke about how schools are being lavished with tons of software that don't address student's needs.

When the laughter died down, he went on, stressing that educational software should socialize kids, not isolate them. After a passing reference to *National Lampoon*, he hammered home his contention that "computers don't teach. Teachers teach. Computers present an opportunity for teachers to teach better. "Snyder ended his speech to spontaneous applause. As he soaked up the group's adoration, Khaleel leaned over to him and whispered, "That was good theatre, Tom."

Snyder doesn't deny he can turn on the charm for a crowd — it was part of what made him a good teacher. "Being appealing is important in teaching," he points out, "and so is 'appealing' in the way you appeal for the United Way. Very often kids need a mentor to help them cross some bridges."

With his boyish smile and cornflakes cynicism, Tom Snyder looks like the kind of teacher every ninth grade girl has a crush on. More than that, his vision, common sense and outstanding track record make him the kind of guy you'd trust with your venture capital. And yet, he pokes fun at the whole scene. He's kind of the Bugs Bunny of academia.

His track record includes the bestsellers, *Snooper Troops*, *In Search of the Most Amazing Thing* (licensed to Spinnaker), and *Agent USA* (Scholastic). Last fall, TSP also released the music studio simulation, *Rock 'N' Rhythm* (Spinnaker), and *Make Millions*, a business simulation (Scarborough).

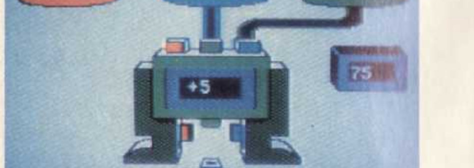
Tom Snyder Productions is housed in cramped quarters on Harvard Square. In the entranceway hangs a framed color portrait of Tom Snyder, the bombastic ex-talk-show host. Most of the 13 members of the TSP crew are in their mid-twenties. The office feels like a dorm before finals — late hours, impromptu huddles, rumpled corduroys, carry-out food. Snyder describes it as an "artists' colony." Though he comes across as forceful and challenging, the way TSP is run — in laid-back, one-of-the-guys fashion — is more consistent with his less public personality.

From this animal house have come his newest programs: *The Halley Project*, a space simulation published by Mindscape, and *The Other Side*, a new twist on the war-game theme that TSP is publishing itself. This is a first for Snyder, who previously had been only too glad to let others do the publishing for him while he took potshots from a distance. "My attitude has been, let the publishers shoot it out for a couple of years while we hide, feeding ammunition up to them from behind the sandbags, and wait till the smoke settles."

The staff of Tom Snyder Productions — young, bright and ambitious.

Ironically, *The Other Side* is about avoiding war. This "global conflict-resolution game" is designed to teach cooperation, by sharing resources and using them economically to insure the mutual survival of the players. Because he expected it to be a "hard sell" — and Snyder is concerned that *The Other Side* be marketed sensitively — he decided to publish it himself.

It's not that TSP couldn't have gone into publishing before. Three years ago a venture capitalist offered Snyder an $80,000 salary and a new Mercedes if



Space Bar runs mixer. RETURN to leave

THE OTHER SIDE (TSP)

The office sometimes feels like a dorm before finals — late hours, impromptu huddles, rumpled corduroys, carry-out food.

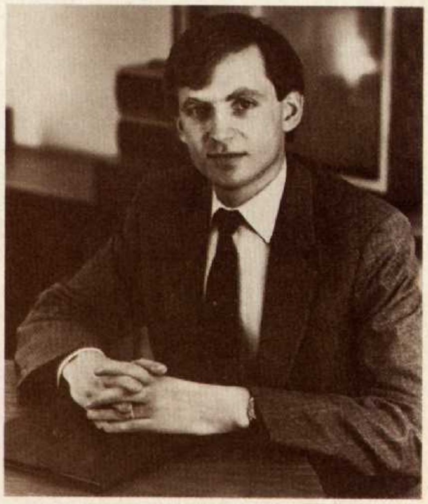
he'd go the publisher route. "I just looked at him like 'I don't give a flying fuck about money, you idiot'," Snyder says. Apparently, he wasn't ready.

Synder's salary is modest compared to other software CEO's, and he drives a 1980 Volvo that he bought secondhand. His main goal seems to be to produce prestige products that bring kids together in creative and problem-solving endeavors. He has deliberately avoided exclusive licensing of his programs and rapid expansion. He maintains that the company must be small and flexible if it's going to produce the kind of products he wants — products that represent the designer's vision. I'm the only person who's going to be able to make a difference in the next couple of years," Snyder boasts, "because everyone's still thinking of computers as some kind of calculator."

The iconoclastic Snyder has been bucking the system ever since he taught his first class at the Shady Hill School, a private Quaker school in Cambridge. It was during his 10-year tenure there that he developed his unique theories about teaching. ("The role of the teacher is to inspire kids to think that learning is as exciting as sex and food," he likes to say.) It was also there that he met his wife Anne, a fifth-grade teacher and got to know the people who would later help finance his business.

Shady Hill is known for its "nontraditional" teaching methods. Anne

Continued on page 78



Rick Abrams, Vice President of TSP.

JOG, RUN, BOOT

From Software to Hard Bodies.

By BOB CONDOR

About five years ago, Roger Bodo bought his first computer. His plans for it were nothing out of the ordinary. He wanted a machine for word processing, something to help with his job as a copywriter for a major advertising agency in Detroit. He bought an Apple.

Soon, like many of us, Bodo discovered the rather extraordinary potential lurking inside his personal computer. He started "fiddling around," writing some sample programs as a hobby. One day he decided to match one hobby with another.

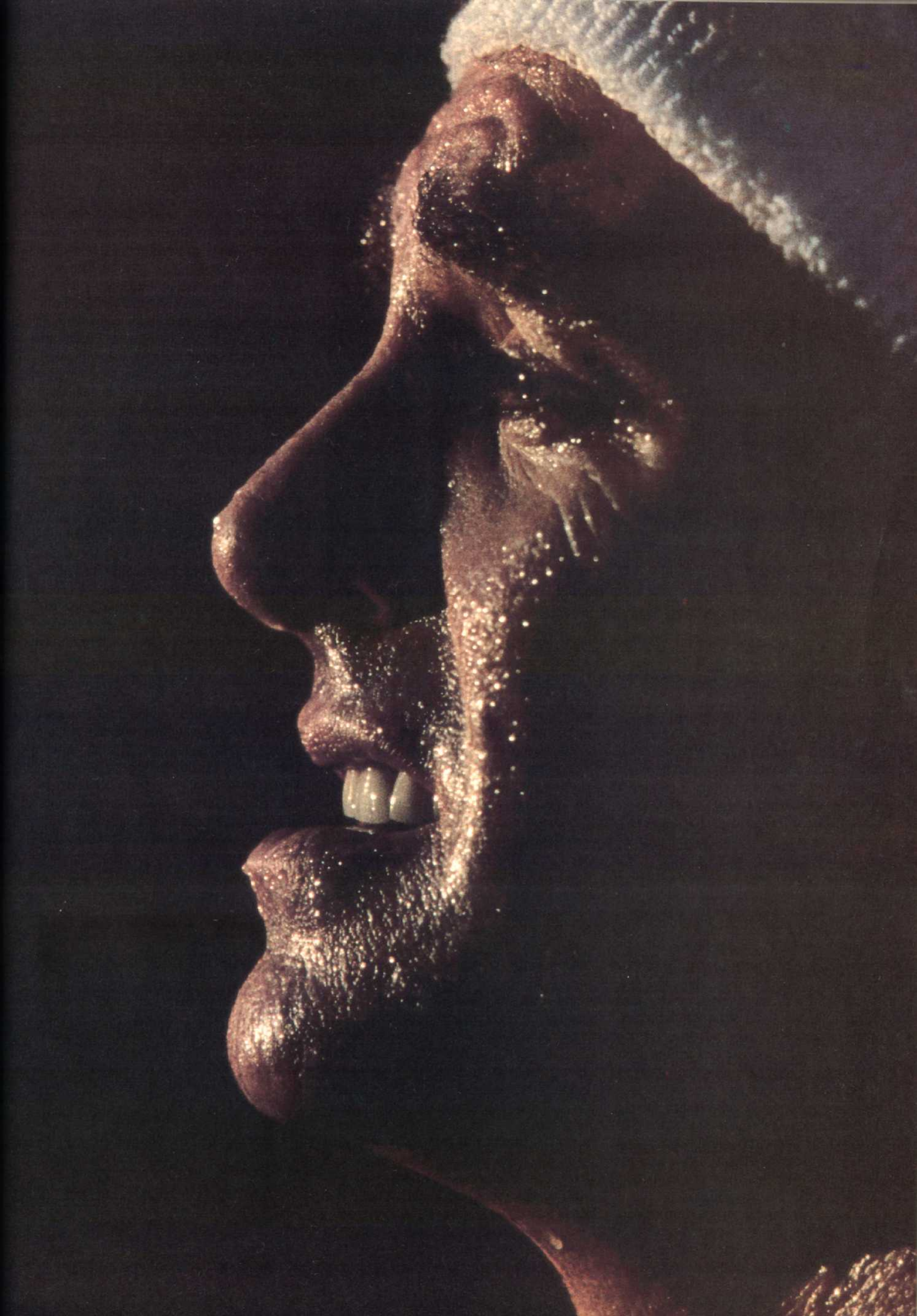
"I was jogging regularly and competing in 10K races," he recalls. "So I thought programming software for my running would be a good application."

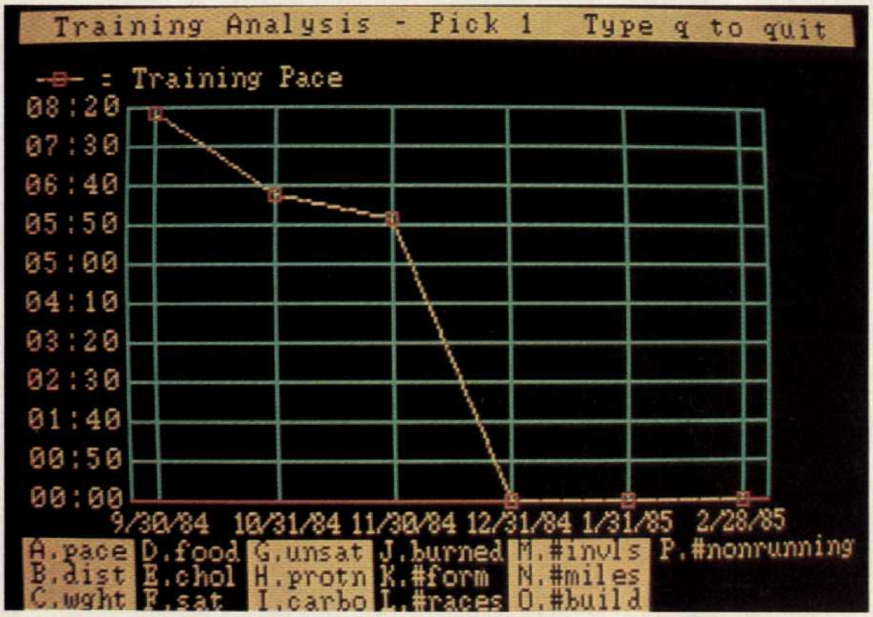
Bodo went to work on a program which tracked the aerobic (or cardiovascular conditioning) value of his running routine. It took more than two years of spare nights and weekends, but Bodo eventually developed *The Aerobics Master,* (Free Lance Ink, 1806 Wickham, Royal Oak, MI 48073, $24.95) one of the first pieces of fitness software to come on the market. He bills the piece as a "day-to-day log for exercisers." "The program becomes your diary for aerobics," explains Bodo, "you enter the distance and time, and the computer will log, update and calculate the aerobic points earned in your workout." The software is based on the work of Dr. Kenneth Cooper, whose book *Aerobics* is generally credited with starting the current fitness craze. Like the book, Bodo's program uses a point system to determine your aerobic level. For example, if you earn 31 points in a week, you're rated as being in "good" aerobic shape.

Besides attaching a quantitative value to your aerobic exercise routine, *The Aerobics Master* tracks several other factors of your workouts, such as calories burned, intensity, course or place, distance covered, time elapsed, speed, start and end pulse, weather conditions and personal comments. You can review this "electronic journal" or call up a graphic option which analyzes the "exercise quality" (a formula that takes into consideration distance covered, speed, aerobic points and weekly frequency) of your year-to-date training.

Bodo admits his program was originally aimed at runners. But *The Aerobics Master* offers categories for bicycling, swimming, racquet sports and rope skipping. Aerobic point values for other activities can be incorporated into the software by referring to Cooper's books. And Bodo himself is willing to customize his program to fit your needs. One happy bicyclist in Birmingham, Alabama, will vouch for that.

"I called Roger and asked him if there was any way he could change the format of the software a little," says Tom Carraway, an attorney in Birmingham. "The program gives you minutes per mile, which is fine for runners but cyclists think in terms of miles per hour during a





Training analysis from *The Running Program* by Jim Fixx.

workout," Bodo now offers a bicycling version of *The Aerobics Master,* which can be used by both recreational and competitive cyclists.

Carraway says the program has helped with his pursuit of fitness. "It gives me a long-range view of my training," he explains. "By charting out where I've been and where I can go, it adds a real element of interest."

Actually, *The Aerobics Master* is only one of several fitness software packages. It's a program I recommend as a good starter package for Apple users. It will satisfy the multi-sport athlete who wants to explore the benefits of using a computer as a training aid. Another solid start-up program, an option for IBM PC owners, is *The Running Log* (Marathon Software, Box 26 Pinecrest, Clancy, MT 59634, $39.95). It also tracks a number of exercise factors, although the program doesn't assign aerobic points. Runners and other long-distance athletes will enjoy the graphic analyses, including selections like most consecutive workout days, weeks with the highest mileage counts and months with the highest percentage of workout days. You'll be surprised how much you can learn about your exercise habits after six months with this program.

Two recent entries in the fitness software market cater to competitive runners. Both are written by very experienced runners, and both have their good and bad points.

Running Your Best Race (Wm. C. Brown Publishers, 2460 Kerper Blvd., P.O. Box 539, Dubuque, IA 52001, $18.95) is a book/software package for Apple users. It's authored by Joe Henderson, the original editor of *Runner's World* and a veteran of more than 600 races, including over 30 marathons. Henderson writes for what he calls "stage two runners," those who are ready and willing to race better. The software's rationale is fully explained in the book, something which can't be said for most personal computer packages.

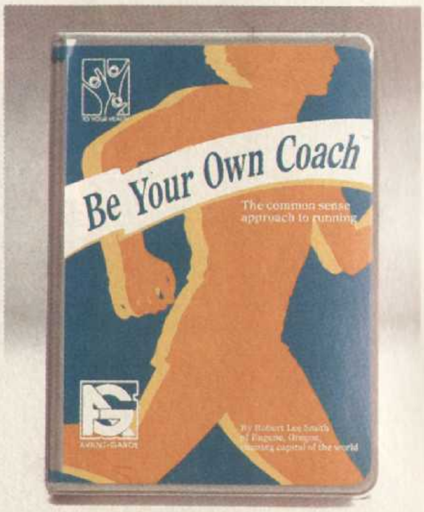
With this program, runners can get advice and an analysis of their training and racing. Henderson splits the training analysis into two parts, the general running routine and "race-testing." As it turns out, Henderson's penchant for having runners simulate races on certain training days is the strongest element of this software package. If you follow Henderson's advice and methods, you'll feel compelled to push yourself on those race-test days. You know the computer's number-crunching analysis won't sympathize with the fact that you've had a rough week and you'd like to take it easy, just this once. In effect, Henderson, via that Apple in the den, is acting as your personal (and persistent) coach.

Another strong point of this program is race reviews, especially Henderson's analysis of how your race time might have been improved if you had paced yourself differently. Also, this portion of the program provides important advice about recovering properly from a hard race.

There are some bothersome aspects to *Running Your Best Race,* which several users mentioned. One is the less-than-ideal record-keeping function. It only retains and displays the last 30 days of your training (other programs store and provide graphics for up to a year's worth of running). What's more, the records are short on detail: date and length of training run or race performance is all you get. Most runners prefer to review weather and course conditions, and being able to record pace per mile doesn't seem to be asking too much.

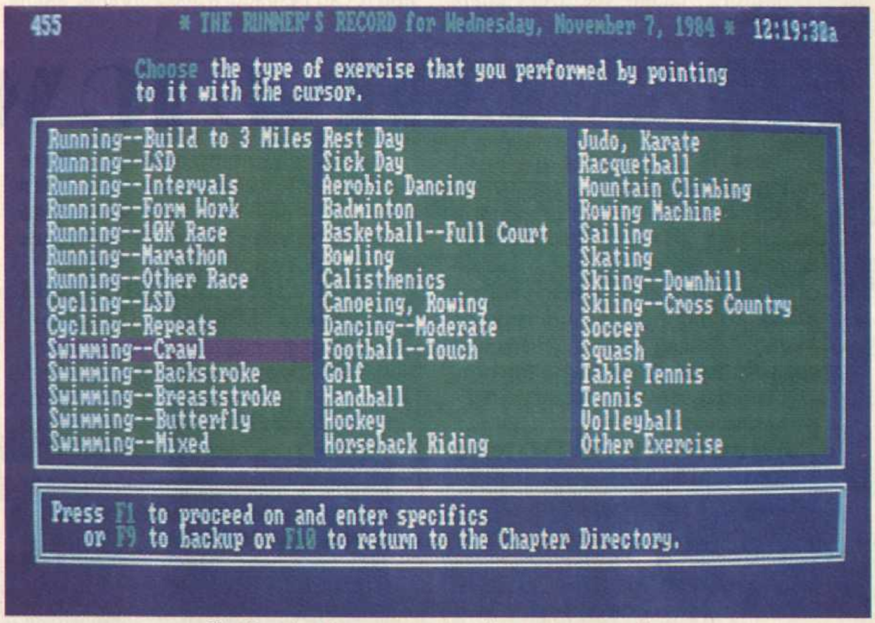
Another problem, though minor, is that the IBM disk-formatting procedure is tucked at the very end of the software manual.

For IBM and Commodore 64 owners, *Be Your Own Coach* (Avant-Garde Publishing Corp., P.O. Box 30160, Eugene, OR 97403, $79.95 Commodore; $99.95 IBM) is the counterpart to *Running Your Best Race.* It was developed by Robert Lee Smith, a runner and coach from Eugene, Oregon, the country's unofficial running capital. Smith's qualifications are fuzzy; they seem to consist mainly of his living in the hometown of Alberto Salazar and Mary Decker Slaney. But he does work from a valid premise with this piece of software: that most recreational runners do not have access to a personal coach, so being your own coach is the most logical alternative.



***Be Your Own Coach* from Avant-Garde.**

"Very soon, there will be all sorts of home devices to help the recreational athlete with a personal computer. You'll be able to 'instrument' a person like a car."



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455          * THE RUNNER'S RECORD for Wednesday, November 7, 1984 *  12:19:30a

         Choose the type of exercise that you performed by pointing
         to it with the cursor.

 Running--Build to 3 Miles Rest Day                  Judo, Karate
 Running--LSD              Sick Day                  Racquetball
 Running--Intervals        Aerobic Dancing           Mountain Climbing
 Running--Form Work        Badminton                 Rowing Machine
 Running--10K Race         Basketball--Full Court    Sailing
 Running--Marathon         Bowling                   Skating
 Running--Other Race       Calisthenics              Skiing--Downhill
 Cycling--LSD              Canoeing, Rowing          Skiing--Cross Country
 Cycling--Repeats          Dancing--Moderate         Soccer
 Swimming--Crawl           Football--Touch           Squash
 Swimming--Backstroke      Golf                      Table Tennis
 Swimming--Breaststroke    Handball                  Tennis
 Swimming--Butterfly       Hockey                    Volleyball
 Swimming--Mixed           Horseback Riding          Other Exercise

 Press F1 to proceed on and enter specifics
    or F9 to backup or F10 to return to the Chapter Directory.
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The Running Program tracks other sports as well.

His philosophy is perhaps best summed up in his pre-program comments. "Following a schedule," he writes, "is not as important as having one."

Be Your Own Coach emphasizes goal-setting, and will suggest training schedules for six running programs: beginning running, weight loss, overall improvement, mileage increase, faster race pace, and peaking for racing. It's more detailed than Joe Henderson's package, especially in its graphics offerings. Users will be able to plot various aspects of mileage, pace, heart rate, weight and workout time within each individual area. For example, you can compare actual mileage and pace times during a workout versus those suggested in Smith's running schedule. *Be Your Own Coach* forecasts mileage and pace increase, given a certain training routine.

The best part of this package is the workout-schedule printout. It maps out the coming week, describing each workout's activity and purpose, and listing paces (fast, recovery, extra mileage) and target mileage. The program will provide up to three weeks of advance workout schedules.

Record-keeping is again a problem with this program. Although it saves up to a year of training data, you can only review it in weekly units. And, although the technical instructions are good, you'll have to be a fairly knowledgable runner to get the most out of Smith's coaching advice in this program and the accompanying documentation.

In contrast, *The Running Program* (MECA, 285 Riverside Ave., Westport, CT 06880, $79.95, IBM PC and PCjr, Apple and Commodore versions planned) has practically no documentation, but it's the most comprehensive and understandable fitness software available today. This package, developed by the same company that publishes Andrew Tobias' best-selling financial software, was authored by the late Jim Fixx. Fixx, who literally got this nation off and running with his blockbuster *Complete Book of Running,* put a great deal of time and effort into this program. And it shows, as does MECA's commitment to creating user-friendly software. The program is quite easy to operate and understand. What's more, recent enhancements of the package have made it a useful device for bicyclists, swimmers and triathletes, as well as runners.

Scarborough's *Boston Computer Diet.*

Many things stand out in *The Running Program,* which can be rightly called "second-generation" fitness software. Its most impressive feature is its analysis capabilities. It can display graphs which chart your progress over any time period, help you develop a highly personalized training schedule (from beginners to racers), and monitor calories, carbohydrates, proteins, fats and cholesterol in your diet. *The Running Program* can also predict race times and evaluate your best race distance. The package includes information about stretching, conditioning, nutrition, running injuries and proper gear.

But I think the most useful part of this offering comes early in the presentation, when it puts you through a fitness test, using methodology and information provided by expert consultants. The 50-question health and lifestyle quiz can be a real eye-opener about your fitness and eating habits.

On a personal note, I knew Jim Fixx well enough to be touched by his sincerity, how much he cared that what he wrote and advised was helpful and correct. I'm sure he'd caution anyone using this software, or any other package, to consult a physician, especially if the user has any health problems or is over 35.

The Fixx software may be state-of-the-art right now but greater breakthroughs are in the works. So says Dr. Bob Arnot, a sports physician and computer scientist who may be best known for his health and fitness commentary on the "CBS Morning News." "You can really come up with a lot of practical fitness advice and applications from space-age technology," he says. "Very soon, there will be all sorts of home devices to help the recreational athlete with a personal computer. You'll be able to instrument a person like a car."

Arnot, who became fascinated with computers in the late 1970's, is on the right track. But two companies, with next-generation products, look to beat him (and others) to market.

JOG, RUN, BOOT

AMF American, the large sporting goods company which makes several lines of home exercise products, is presently offering a computerized "wrist fitness monitor," called the Benchmark Quantam XL ($295) which follows your pulse during a workout to help you achieve a "target heart rate" needed for top conditioning. It doubles as a watch, and it can be used while running, skiing, bicycling, swimming (it's waterproof), playing tennis or whatever.

Soon, you'll be able to buy a Quantam XL Fitness Computer package (for about $2,000) which will interact with the Benchmark wrist monitor/watch. The Quantam XL Fitness Computer is basically a "beefed-up Commodore 64," according to AMF spokesman David

Continued on page 82

EATING TO WIN

There is a crowded menu of nutritional software packages available for home computers. And while all nutrition programs can help you stay healthy, some are more directed toward pairing good eating habits and regular exercise than others. Here's a capsule look at some programs with relevant exercise components.

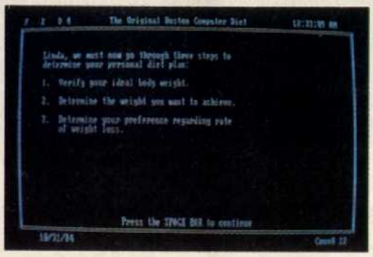
ANJON NUTRITIONAL ANALYSIS SYSTEM (Anjon Systems, P.O. Box 4278, South Bend, IN 46634, $250 to $300, IBM PC). Currently, this program is only available for teams and institutions, but a home version is in the works. While it costs more than most personal software packages, it's worth it for the serious-minded athlete. Anjon's program has been used and praised by four pro football teams and the U.S. Olympic Training Center in Colorado Springs.

Anjon incorporates your body's fat-to-muscle ratio and cardiovascular endurance to provide an extensive analysis of how your diet is affecting your sports performance. It suggests foods you should be eating or avoiding in order to play your best game or run a better race. The *Anjon System* develops an overall nutrition plan to improve your body composition, muscle strength, power, endurance, speed and agility.

HEALTH-AIDE (Knossos Inc., 422 Redwood Ave., Corte Madera, CA 94925, $79.95, IBM & Apple). An extensive program which has a food data-base of 800-plus items, with expansion capabilities. It tracks more nutrients (33) than you may know existed, including fiber, polyunsaturated and unsaturated fats, vitamins, minerals and essential amino acids.

Health-Aide also has a "Personal Data Tracker" which allows you to follow ten items of interest, such as your resting pulse, blood pressure, training mileage, where your meals were eaten, even biorhythms. The program also will analyze your favorite recipes for nutritional value.

THE ORIGINAL BOSTON COMPUTER DIET (Scarborough Systems, 55 S. Broadway, Tarrytown, NY 10591, $79.95 Apple and IBM, $49.95 Commodore 64. Acts as a "personal weight-loss counselor" to help people wanting to lose anywhere from 10 to 40 pounds. In addition to nutritional advice, it offers information about relevant exercise routines and behavior modification.



The Original Boston Computer Diet

Linda, we must now go through three steps to determine your personal diet plan:

1. Verify your ideal body weight.
2. Determine the weight you want to achieve.
3. Determine your preference regarding rate of weight loss.

Press the SPACE BAR to continue

THE NUTRITIONIST II (N-Squared Computing, 5318 Forest Ridge Rd., Silverton, OR 97381, $295, Apple and IBM). This package is geared to nutrition professionals, as indicated by the price tag. Even so, it can be used in the home, especially by the more motivated athletes among us. It will analyze foods, recipes, meals, menus and diets for nearly 40 different nutrients (including water and sodium).

What makes it different is that it can help you develop a special diet to match your training intensity. A "Fit Program."

NUTRI-CALC (PCD Systems, Inc., P.O. Box 277, 163 Main St., Penn Yan, NY 14527, $129, Apple and IBM). This product is less expensive than *The Nutritionist II*, but it's nearly as sophisticated. *Nutri-Calc* analyzes foods and diets, including the interesting measure of checking your eating habits for "fluid" and "energy."

You can also discover your ideal caloric intake based upon age, sex, desired weight goals and activity levels. There are five basic categories of physical activities considered: walking, sitting, sleeping, standing and vigorous work. An added feature is that the program can print out customized weekly menus.

TOTAL HEALTH (Computer Software Associates, 65 Teed Dr., Randolph, MA 02368, $29.95, Commodore 64). A simplified package (data base has 150 food items) which is a good starter program for those users who want to analyze both diet and exercise. It shows you the calories, sodium, fats, protein and carbohydrates content of your current eating patterns, then you enter your current weight, weight goal and activity level (sedentary, somewhat active, active, very active, athletic). What results is a quick report on whether you're eating right and staying in shape.

THE BALANCING ACT Box 1484, East Lansing, MI 48823, $50, Apple). This is another program aimed at computer owners who want to lose weight. You report food intake and relevant personal data, and the program sets weight goals for you to reach. It also makes suggested changes in your diet and exercise habits.

MASTER CONTROL DIET AND EXERCISE PROGRAM (Healthware, 1504 Leander Rd., Georgetown, TX 78626, $69.95, IBM). Designed by a physician, this program is directed at those concerned with losing weight. Besides the standard dietary advice and analysis, *Master Control* has an "exercise scoreboard" which calculates the effect of exercise on your body weight.

The package also offers a health quiz which will help you learn about nutrition, exercise programs, and the dangers of being overweight, as well as a thorough diet guidebook to serve as reference for the software.

video

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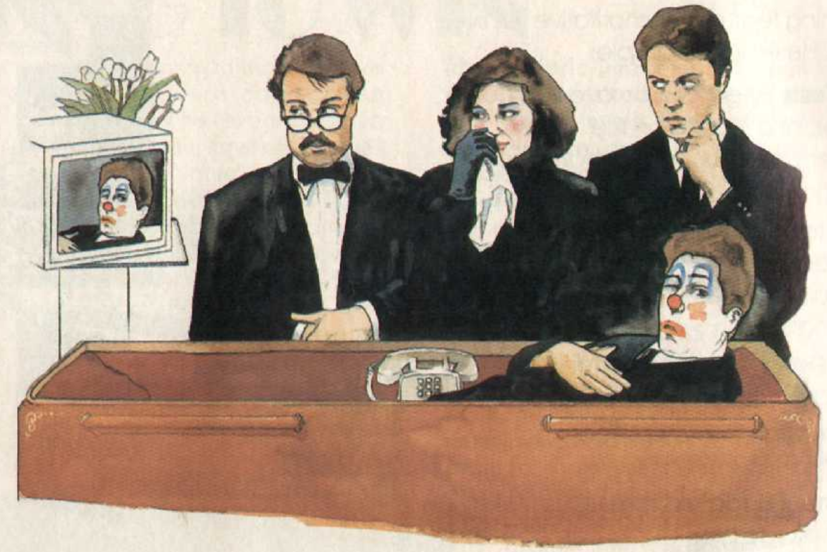
SO YOU WANT TO BE AN
OSCAR MEYER

By RANDI HACKER

These days, there's nothing you can't experience using a computer simulation. (Well, maybe one thing but we don't want to get into that here. Not many people are interested in cleaning fish, anyway, more's the pity.) You can change history (e.g. win the Battle of Little Big Horn and lose the Civil War), you can be president, make and lose millions in the stock market or join the crew on the space shuttle. Pretty soon, they'll have city simulators which will recreate the chief attractions of major cities such as San Francisco, London, Geneva, Bangkok and Chagrin Falls. So, using a flight simulator you'll be able to make simulated visits all over the world. With any luck, you'll never actually have to get on a plane again.

Still, despite the huge number of programs available, there are huge gaps in the simulation area. There is no Gap Simulator, for instance, but that is the least of our worries. At least, it is the least of *my* worries. Among others that are missing are Nun Simulators, Surgery Simulators, Taffy Pulling Simulators and Orthodontic Simulators. But we don't want to pursue those here. We want to pursue others about which we've already written vast amounts. That's the sort of thinking that saves energy. Here, then, are some suggestions for simulation programs that software companies ought to give a thought to putting out in the future. We're not ordering them to create these, you understand. These are just gentle prods. Prods, as in cattle.



R.I.P.

FOREST LAWN: There are numerous banker and stockbroker simulations but what about undertakers, huh? Name some undertaker simulations. Go ahead. Can't think of a single one, can you? This is an outrage. After all, morticians are honest wage earners just like you and me. Well, you anyway. And plenty of people would like to become undertakers, although perhaps they shouldn't be encouraged. For those unwholesome few, there's *Forest Lawn*, the undertaker simulator. This menu-driven program affords users the opportunity to plan a funeral from beginning to end without actually having to touch a dead person. Your day begins with a meeting with the bereaved. You then take them to the casket showroom where you can actually climb into one of the more expensive coffins to demonstrate just how comfortable the dearly departed will be. Points are awarded by type of casket sold. If you manage to get the family to kick in for a bronze coffin, silk-lined with AT&T equipment, a video camera and a change of clothes for formal functions in the afterworld, you get more points than if they decide to go with a plain pine box.

Later you get to embalm and make up the corpse. This particular function really takes advantage of the superb color capabilities of your computer. A subtle shade of red on the cheeks, a little darker on the lips, some tan powder on the back of the hands and voila! So likelife looking!

After this, it's on to the viewing. If at anytime you should need advice, simply press the HELP key and a list of all-purpose non-denominational phrases of sympathy are at your fingertips. When used in conjunction with the *Music Construction Set*, actual original funeral dirges can be composed. And what makes the funeral service so realistic is that, except for name and gender, the eulogy is exactly the same for every deceased person ("We're gathered here to mourn the passing of YOUR NAME HERE, beloved (husband/wife) and devoted (father/mother). He/she has gone to greener pastures etc."). A brilliant touch. And you can save the best of your efforts on disk to show your friends. More recent versions of this program have added a space option for those who wish to have their mortal remains cremated and sent into orbit high above the Earth — Space: The Final Resting Place.

NASA

NEXT STOP, THE COLUMBIA: Everybody is always making such a big noise about piloting the space shuttle but what about the guys at NASA who pilot the ground vehicles? The Space Shuttlebus drivers. Their job is difficult, too. Without them there wouldn't be any takeoffs at all. Well, technically, there would be takeoffs but nobody would be inside the ship. You can pretend to be one of these highly-skilled and specially-

WEINER

Computer simulations you're never going to see. Don't thank us now.

trained drivers with this fabulous simulation. Rendezvousing with satellites is tough but pit your depth perception against this baby: Lining up that four speed van with the touchdown spot. No piece of cake, brother! And you've got to be on the ball for that perilous journey from runway to debriefing center — one centimeter off in judgment and you're driving on a one-way route to a brick wall. Watch for signs or you'll lose your way. You think black holes are dangerous? Try getting your back wheels out of a soft shoulder sometime. The lives of great Americans are in your care. Don't forget to tell them to buckle up!

The intricacies of the bus dashboard have been faithfully reproduced in hi-res graphics. All those instruments on which your safety relies are duplicated on screen. There on the right is the glove compartment where you keep your gum. There to the left the important light switch for driving in the darkest of nights. You'll learn to identify and use all the instruments on the dashboard such as the steering wheel, the hood release and the Dolby noise-reduction control.

At the push of a key, you can also get a close up of the engine. But you won't want to do that. So many parts. And they all look so much alike. When repairs need to be made en route, use the HELP key. A trained mechanic will drive up in a tow truck. This costs you points and respect but in the end you'll know you've made the right decision. After all, trained mechanics have to eat, too.

TOLL

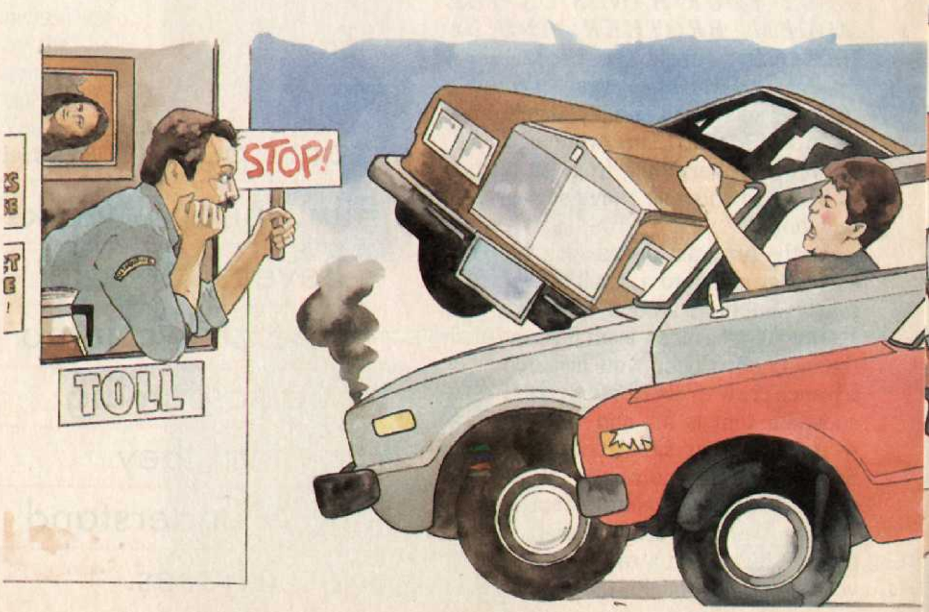
NO CHECKS, PLEASE: It's 3 in the morning (or, as you, intrepid toll booth attendant, might say: 3 AM in the morning, you redundant old monkey, you) and no cars have gone by in hours. You decide to take a little nap. You doze off and dream that the huge painting of the matador on black velvet that hangs in your living room is actually a Rembrandt original done during his kitsch period. As you're deciding how to spend the money (by buying your own toll plaza and undercharging the competition), a car full of roisterous teenagers tries to pass through the barrier without paying. You're awake in a flash and sliding down the pole into your rubber boots. . .no, wait. Wrong simulation. You're awake in a flash and you stop them. No one gets through the Lincoln Tunnel or over the G. Washington or G. Gate Bridges free. Not while Toll Booth Attendant is on duty. (Heroic music up and out.)

That's just one of the action-packed scenarios you'll have to contend with when you boot up *No Checks, Please.* Other crises that have to be dealt with include the guy who only has a twenty and is first through in the morning; the driver who thinks it's funny to take a handful of pennies and toss them straight in the air in the general direction of the change basket or your hand and the guy who misses and then gets out and picks up the loose change. This always happens during rush hour just as the traffic copter from the local radio station hovers into view overhead and you hear her saying ". . .traffic is backed up all the way to Cairo. . ." This is not exactly how you envisioned using those 15 minutes of fame allotted you by Andy Warhol but, hey, you're a Toll Booth Attendant and you've got a job to do!

Next to the graphics — those flawlessly rendered identical booths with their red and green lights — the best part of this simulator is the uniform. That about says it all, doesn't it?

LAX?

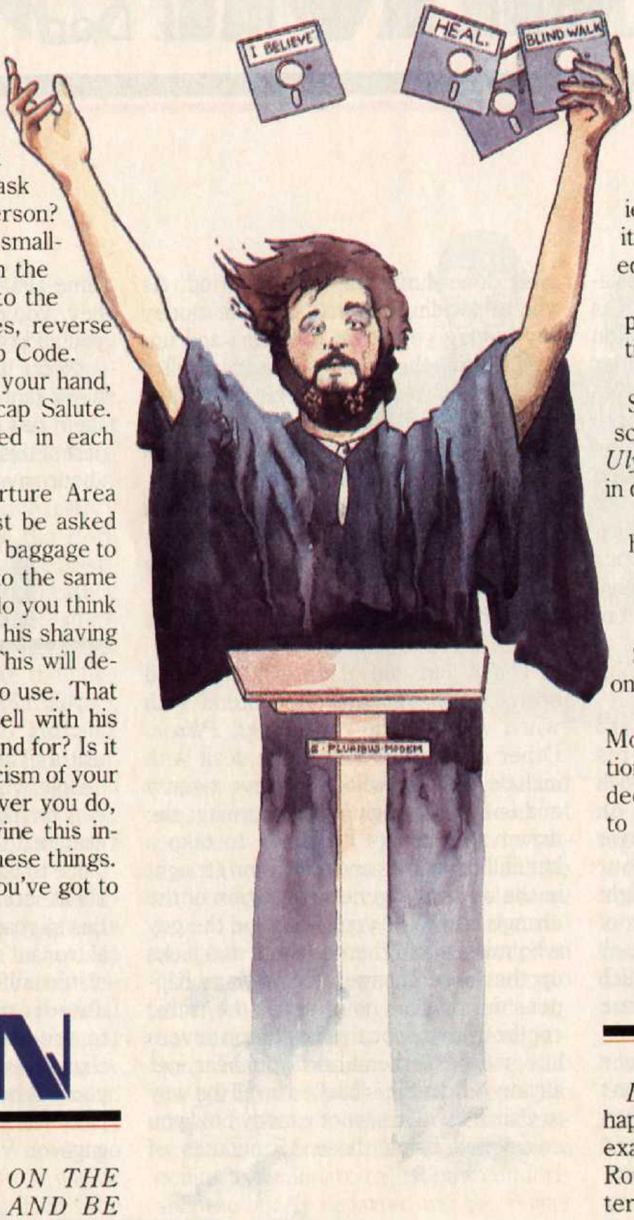
ALL THIS YOURS, BUD?: What's all this concentration on flight simulators, anyway? What about all those people who love airplanes but prefer to stay on the ground? (And a sensible preference it is, too. So much shorter a distance to fall if your engines fail.) For that silent, trembling majority, we suggest this skycap simulator. Just like pilot and astronaut simulators, you get a nifty simulated uniform to wear, hundreds of simulated responsibilities and one real check to write out in order to successfully purchase this program. Like a real skycap, you will be faced with difficult decisions: How will you pile the nine pieces of luggage on your cart so that everyone is



OSCAR MEYER WEINER

aware that they're designer bags? What's the best way to stack them? Here's a hint for that last question: First ask yourself: Do you like this person? If the answer is no, put the smallest and most fragile piece on the bottom and work your way to the heaviest. If the answer is yes, reverse that plan. That is the Skycap Code. Learn it. Recite it. Hold out your hand, palm up, in the secret Skycap Salute. A simulated hand is included in each package.

If you choose the Departure Area from the menu, you will first be asked where you want your client's baggage to go. Do you want to send it to the same destination he's going to or do you think he harbors a secret wish for his shaving kit to end up in Paraguay? This will determine which baggage tag to use. That blue tag over there goes well with his luggage. What does LAX stand for? Is it a destination or a subtle criticism of your attitude? Who cares. Whatever you do, don't ask him. Learn to divine this information. Practice *feeling* these things. After all, you're a skycap. You've got to know.



AMEN

PUT YOUR HANDS ON THE MODEM, BROTHER, AND BE HEALED: Here's the program for those of you who have always wanted to be evangelists but simply didn't have room for a tent. This wonderful simulation has everything from string ties to bibles to souvenir mugs saying "I ♡ salvation!"

As the program opens, you and your entourage pull into a small Midwestern town sometime around 50 years ago. You scout out a nice vacant field and pitch the old tent. Then you dispatch your advance crew to distribute flyers. Pretty soon the tent is full and you wish you were in another simulation altogether. Sweating (the company should be praised for its realistic depiction of sweat. The support material includes blouse shields and a roll-on deodorant), you walk to the podium and announce in a booming voice, "I'm here!" This drives the audience wild. You hold up a tattered and limp copy of an old leather-bound book. The audience is in a frenzy. Never mind that it's a copy of McGuffy's Reader. The edges of the onion skin paper are red and that is all that counts. Lame people see. Blind people walk. Skeptics believe. The kidnapped daughter of the mayor is returned unharmed. Several people in the crowd jump up screaming that they finally understand *Ulysses*. A couple gets up and walks out in disgust. What do they know? And the best part is that this doesn't have to be conducted in silence. No. This is a voice-enhanced program. Enhanced with the voice of anyone you choose: Brigham Young, Aimee Semple McPherson, the Angel Moroni, the Angels' Reggie Jackson, Seth, James Cagney, Betty Boop, The Mormon Tabernacle Choir (any section), Harpo Marx, Ethel Merman. You decide. The world — and the world to come — is yours.

Lame people see. Blind people walk. Several people in the crowd jump up screaming that they finally understand *Ulysses.*

GLUB!

DEEP FLOAT: Strange things can happen to you when you lie down. If, for example, you lie down in the middle of Route 80 (West or East, it doesn't matter), it could change your life. That, however, is the subject of the Chief Medical Examiner Simulation which we aren't going to cover here. What we're concerned with is lying down in a simulated isolation tank. An isolation tank is also known as a sensory deprivation tank because you enter it naked, and float in salty water in total darkness and silence. No stimuli get inside at all. No noise. No sights. Not even your family is allowed inside no matter how dull they are. Under conditions like these, the mind turns in on itself and produces hallucinations. Why it can't produce something useful like gold bullion — or even beef boullion — is something scientists are struggling to figure out. Anyway, many people swear by isolation tanks no doubt because they have misplaced their notary publics.

This menu-driven program faithfully reproduces the flotation tank experience except for getting wet. First you meet a wholistic receptionist who assures you that this will be the most incredible experience in your whole life, really. Then you undress. Then you decide how long you want to stay inside — 2, 4 or 6 hours. Then you're taken into the room where the tank is. When you lie down in it, you notice that it bears an uncomfortable resemblance to a coffin. With this thought, the lid is closed and there you are — in total darkness and silence. Have fun!

This is truly an interactive program because there are no preprogrammed hallucinations. You and the computer work together to come up with really bizarre fantasies symptomatic of deep psychological problems. The experience is recreated remarkably well. The instant the assistant closes the lid, the screen goes totally blank, and the comforting hum of the disk drive shuts off altogether. This lasts for as long as you've opted to remain submerged. And that's real time, buster.

Oh yes, this simulation is also available with fresh water for those on low sodium diets.

BOOM

GLOBAL THERMONUCLEAR GRAMMER: This is simulated English at its best. Russian nuclear submarines have been planted in an otherwise grammatically correct English sentence. Your job is to find them and defuse them before they blow syntax sky high. Thanks to the magic of fractals, the irregularities of English grammatical rules have been rendered superbly here.

CASH

TRICKS AND STREETS: Unlike all those other Lady of the Night simulations already on the market, *Tricks and Streets* is more than just a one night stand. Not only does it involve strategy and skill, it's also a small business tutor and teaches the rudiments of criminal law. Those who are patient and do their jobs well, will be acquitted and might even end up the Madam of all they discretely don't see.

At the beginning of the game, you get to choose the name by which you wish to be called. You can select it either from the ready-made list that comes on the disk — a list which includes such kinky monikers as Lila, Fifi, Modesto, Domino and Sister Mary Michael — or you can invent your own. We chose Cleo, the Whip Lady. If you prefer, you can even pretend to be a famous lady of ill repute such as Belle Watling, Blanche du Bois or Irma la Douce. In addition, the menu gives you the option of having a heart of gold.

Next, the computer presents you with a list of possible outfits. You can opt for the total Spandex look and swing your hips in leopard skin or you can go with teeny weeny shorts, pantyhose and white sleeveless T-shirts. Boots, of course, are *de rigueur* if you can spell it.

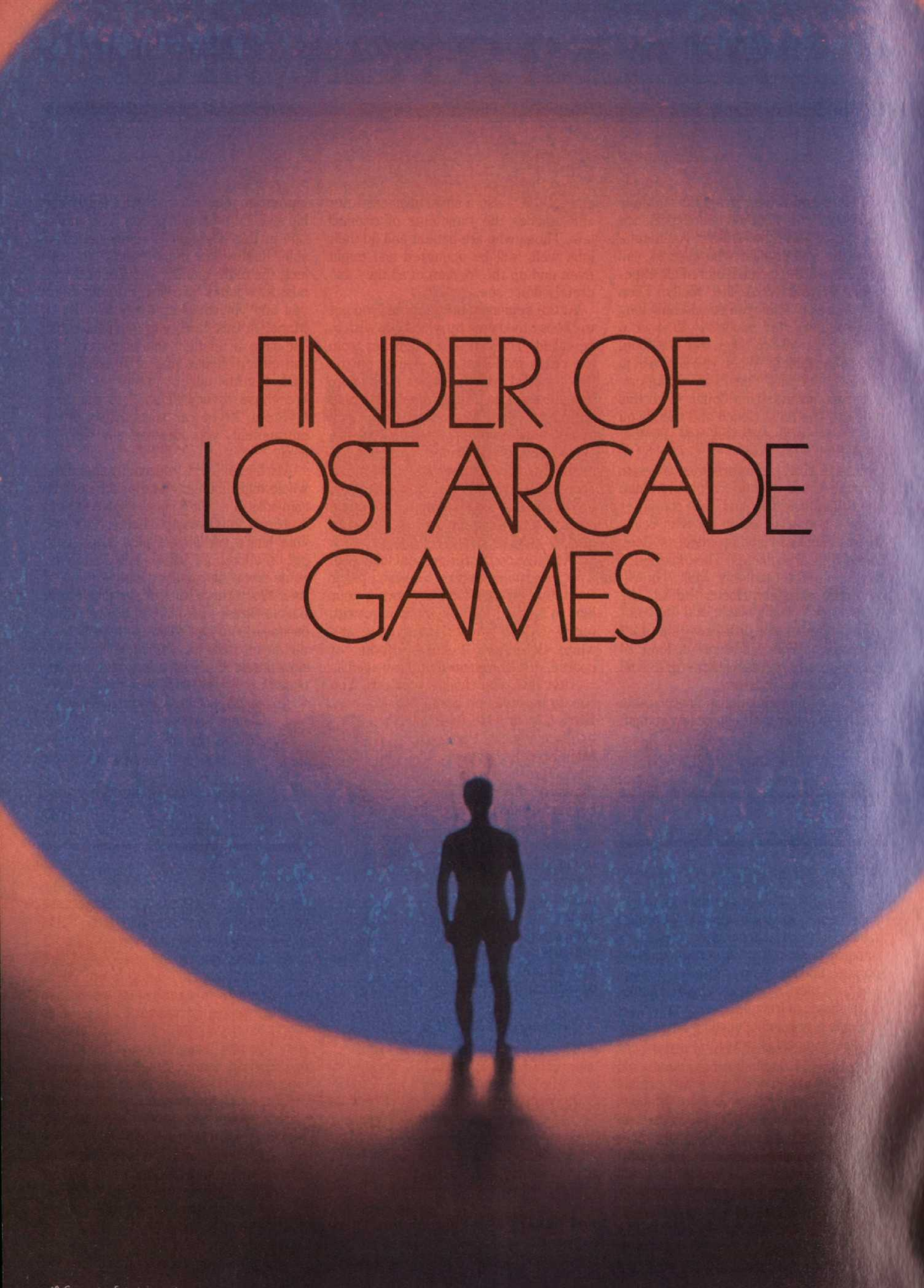
After this, you choose your turf. You can do business on Santa Monica Blvd, CA; or 11th Avenue, NY; or Place Pigalle, Paree; or Main Street, Anytown, USA. Here's where the game of skill begins. As each "john" passes, you must try to catch him before he is picked up by the competing call girls. You do this by calling on all your wiles: Eyelid fluttering, hip swinging, bargain prices. The animation in this segment is really unbelievable. Really. The more "johns" you collect, the more money you take in. If you miss five "johns" in a row, the police bust you and you're taken away in a Black Maria. In this case, you must raise bail and have an air-tight alibi prepared. You can either choose one of the alibis included on the disk or create your own. We chose to say "Huh?" to our prosecutors. If you can successfully prove entrapment, you automatically win the game.

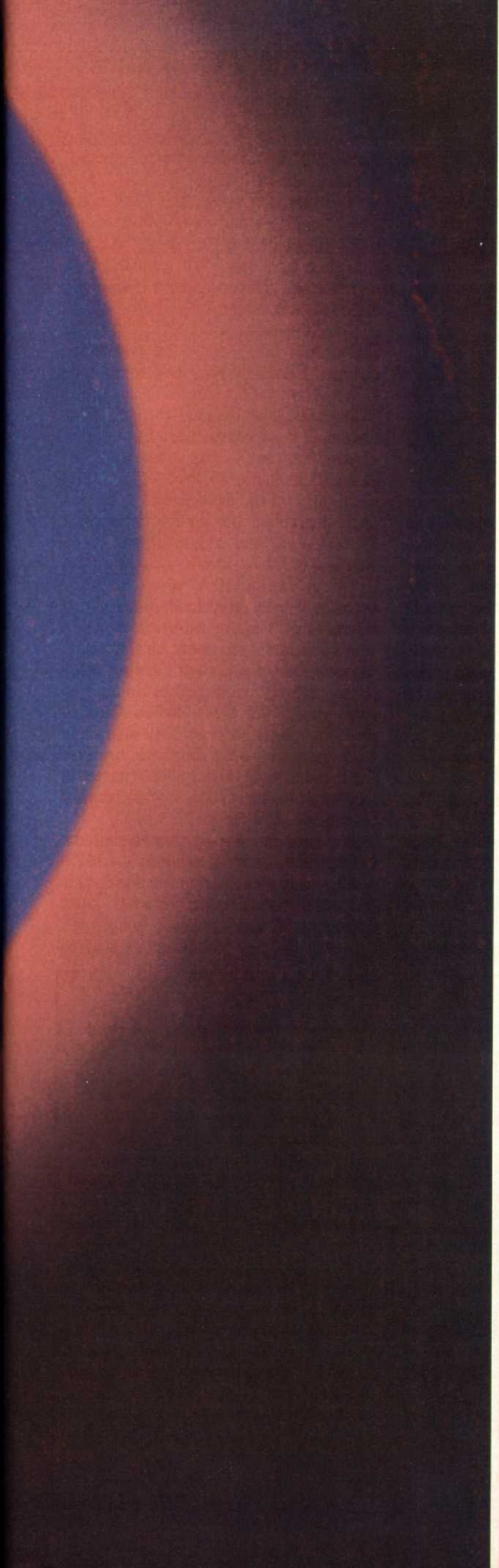
At a higher level, you simply spend the whole night lounging in a peach colored camisole in a living room crowded with Victorian knickknacks. Later, you dye your hair a garish red, gain 50 pounds, put on a long, gossamer gown and welcome innocent young college boys in for their first time with Honey, the blonde Carole Baker look-alike in the baby doll pajamas. You can even save your best nights on disk for sighing over during slow times. A "most scores" list is maintained on disk as well, and you can constantly change your ranking by doing better.

OSCAR MEYER: In this simulation, just wishing will make it so. Other coldcuts simulations will be available soon.

ce

FINDER OF LOST ARCADE GAMES





For every hit game, there's one collecting dust in a closet somewhere.

By JOHN HOLMSTROM

Only a few years ago the arcade business looked a lot like the rock music industry does today. Games like *Pac-Man* and *Asteroids* became overnight phenomena, magazines devoted to America's newest craze proliferated and game designers skyrocketed to pop-star status. An industry that had built its success primarily on juke boxes and pinball machines — the "coin-ops" of their day — was unprepared for all the hoopla. For a while the arcade game companies could do no wrong, but before long the problems as well as the perks they shared with the recording and film industries began to surface: fragile egos had to be stroked, "celebrity" programmers auctioned their services to rival companies for outrageous fees, talent raids became commonplace. Now, two years after the height of the storm, the arcade industry is still digging out from beneath the rubble. Many of the problems have disappeared, but so has a lot of the glory.

Buried with the corpse of the original arcade phenomenon are dozens of games that never made the leap from the engineers's labs to the arcades. I spoke recently with several game designers who either simply wanted to tell the world about their lost projects or complain about why certain games were short-circuited forever. Most preferred to do both. Some games performed well when tested by the companies and still were never released. Others just seemed to get lost in the corporate shuffle. In the beginning, there was *Clone* — one of those rare animals that was never to be allowed in an arcade no matter how much money it made.

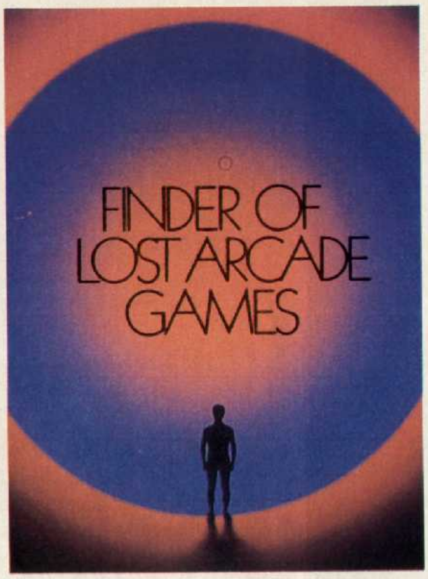
Clone was played in a sit-down cabinet, with one very unusual feature. Designer Elaine Ditton describes it: "It had a camera that sat on top of the monitor, and it started out by taking four pictures of you. You could stick out your tongue or make any kind of face that you wanted to. It saved the last picture in the champion page (high-score screen), so the high scorer and the last person who played would be your opponents."

After being photographed, your face was inserted in a circular pod that had four ports sticking out of the top, bottom and sides. The object of the game was to fill empty pods with your face before your opponents could get to them first. The screen scrolled in all directions (like Sinistar) and featured a radarscope that indicated where the other pods were.

Although Ditton was working on *Clone* for an independent design group headed by Marvin Glass, Bally had agreed to test *Clone* in the arcades. That's when Ditton got the bad news: *Clone* was doing well, but there was this problem. "Somebody," Ditton says, "exposed himself to the game. A moon and a frontal shot. Nobody thought people would do that since the cabinet was wide-open. But someone did it anyway. It was pretty funny, I thought."

Ditton admits there was another slight problem the powers-that-be had with *Clone*. "They felt the whole game had a sexual connotation because of the way the pods and the ports came together in order to fill the other pods. They thought that the graphics were sexual, so they shied away from it."

Most game designers, even the pop stars, have suffered through the experence of sweating over a project for a year or more and never seeing it surface in the arcades. But Owen Rubin's track record is not to be believed. Before finally tasting success with the Atari games



Space Duel and *Major Havoc*, Rubin was involved with one disaster after another. An Atari engineer for eight years before he recently joined Bally/Sente, Rubin had his hand in several early arcade bombs such as *Invasion, Cannonball* and *Skydiver* (the latter two became Atari cartridges). But the game that Rubin, who likes to be known as the "King of the Flops," will never forget and didn't stop talking about during this interview was *Tube Chase*. . .or was it *Tunnel Hunt*? Would you believe *Vertigo*? Rubin simply says, "It was 'The Game That Wouldn't Die'."

The story begins in 1978, when Rubin finished the first pass on what was then being called *Tube Chase*. It was a 3-D flying game in which you traveled through a tunnel, firing missiles at oncoming attackers. The longer you survived, the faster you flew. Once the game ended, dizziness was a not uncommon side-effect.

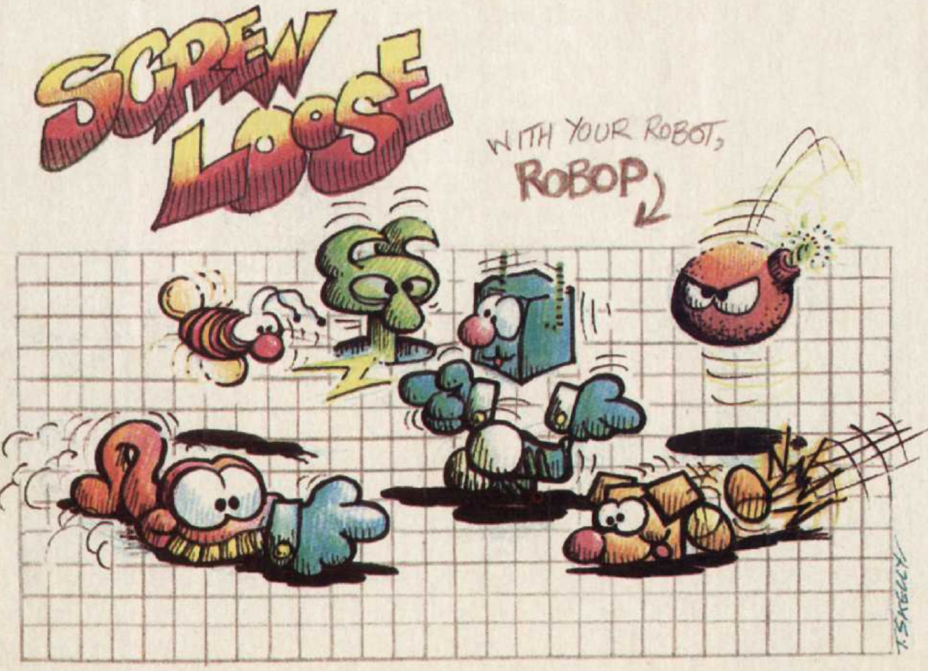
"We tested it in Seattle," Rubin recalls, "and it earned consistently for 12 to 14 weeks. Definitely a decent earner. And then they said, 'We want to make one change.' That was after I'd already been working on it for a year and a half. Six months later it tested exactly the same. And they said, 'Just one more change.' Finally they decided not to build it."

Instead, Atari decided to palm *Tube Chase* off on a competitor. First Exidy showed interest — they were ready to change the name to *Vertigo*, but then backed out of the deal. Centuri stepped up and grabbed the game, renamed it *Tunnel Hunt* and requested yet more changes made by Rubin.

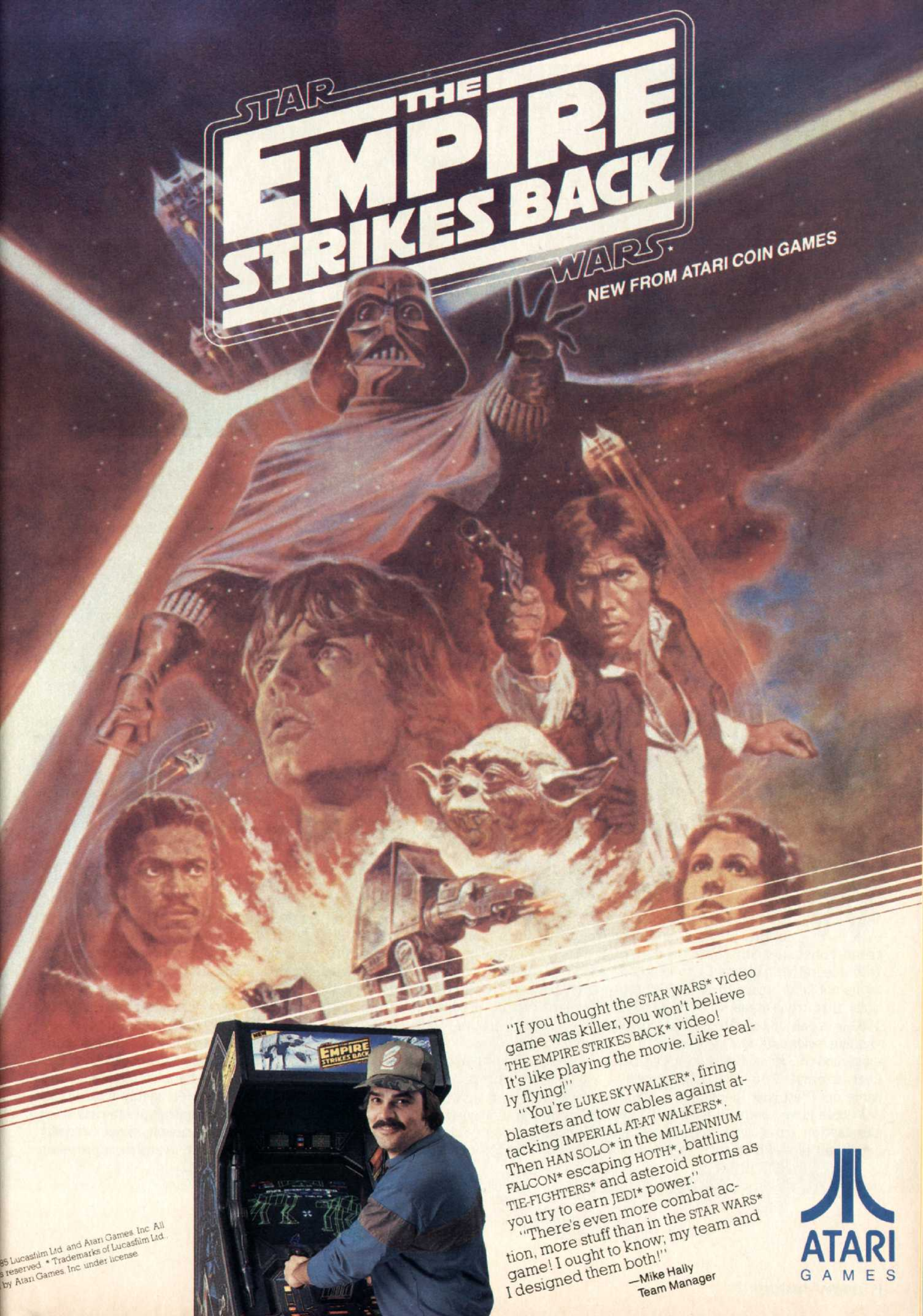
"We're talking 1982 now," he says, seemingly exhausted from just relating this fiasco. "I figure three of my eight years at Atari were spent on that game alone. So what happened? Centuri ended up selling only about 500 of them. Had Atari built (*Tube Chase*) when it tested well, they probably could have sold six to eight thousand — maybe more, because the arcades were buying a lot of games at that time. In my opinion, it was strictly a management problem."

It's hard to believe that during the height of the arcade silliness — 1979-1982 — any game sat on the shelf, as in the case of *Tunnel Hunt*. But, apparently, Rubin's saga was not unique.

Continued on page 81



Most game designers have sweated over a project for a year or more and never seen it surface in the arcades.


STAR WARS
THE EMPIRE STRIKES BACK
NEW FROM ATARI COIN GAMES
EMPIRE STRIKES BACK
ATARI
GAMES

"If you thought the STAR WARS* video game was killer, you won't believe THE EMPIRE STRIKES BACK* video! It's like playing the movie. Like really flying!"

"You're LUKE SKYWALKER*, firing blasters and tow cables against attacking IMPERIAL AT-AT WALKERS*. Then HAN SOLO* in the MILLENNIUM FALCON* escaping HOTH*, battling TIE-FIGHTERS* and asteroid storms as you try to earn JEDI* power."

"There's even more combat action, more stuff than in the STAR WARS* game! I ought to know; my team and I designed them both!"

—Mike Hally
Team Manager

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Louis
XVI
PARISIAN STRAIGHT BOURBON
YEARS 108 OLD

What's Elizabeth Taylor's Favorite Bourbon?

In Pursuit of Electronic Trivia

By BOB GUERRA

While it may be true that *Trivial Pursuit* has given birth to a national obsession and in the process supplied trend-conscious software producers with a lucrative bandwagon to jump on, let us not labor under the false assumptions that trivia itself was invented in 1981 by a pair of dedicated, Nobel Prize-winning scientists and that before the existence of *Trivial Pursuit*, no one had ever attempted to recall that pooch's name on "Petticoat Junction."

People have always gotten a certain satisfaction from retrieving those insignificant bits of data such as the name of Sky King's niece or the number of stars which make up Orion's belt. It's the kind of thing that appeals to a level of intellectual pretension in all of us. *Trivial Pursuit* can be credited with creating the preferred pastime of the eighties, by capitalizing on people's need to show off in a non-threatening arena. Despite some awkwardly-phrased questions and a few flat wrong answers — not to mention the recent plagiarism suit — *Trivial Pursuit* is a pretty class act. From the ornately-scrolled logo to the game board it's clear that the game is the result of reasonably careful planning and some attention to detail.

Unfortunately, not all the game's floppy counterparts can make the same claim. Although most of the computerized trivia contests which have appeared on the market since *Trivial Pursuit*'s publication seem to be intelligent efforts to provide the same fun and party atmosphere through a computer as you get from the board game, others have too often been hastily-written and poorly-conceived attempts to cash in on the trivia phenomenon. Since virtually every trivia game available approaches

the subject from a slightly different perspective, you'll have to shop around a little to find one that appeals to you.

Purists, for example, who want a program which preserves as much of the feeling and flavor of *Trivial Pursuit* as possible will probably only be happy with *Triv Mania* by Star Software. *Triv Mania*, available for the IBM PC and compatibles, features an on-screen game board with such familiar elements as "roll again" spaces and a central area where players get to select their own categories. It also includes the original six categories with 1000 questions each, color-coded spaces to determine the category of a question, and requires that each player answer at least one question correctly from each category.

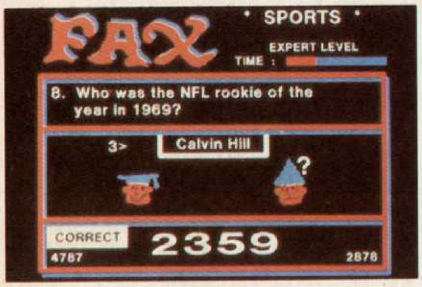
Some welcome additions include a built-in timer which can be set from 1 to 99 seconds, two independently selectable skill levels, an on-screen display of each player's stats, and the ability to save a game in progress. Believe me, it's a lot easier to save a game to disk than it is to try to leave, untouched, the pieces on an actual game board until the next time cousin Arthur comes to visit.

Despite *Triv Mania*'s similarities to the original, it ultimately fails to recreate the atmosphere of a marathon session of *Trivial Pursuit*. And, in fact, this is an unrealistic expectation of any piece of software.

While you're playing *Trivial Pursuit*, the board is simply a tool of keep track of everyone's progress. The real fun comes as each player takes his turn in the spotlight. When the game is turned into a piece of software, the steady glow of the computer monitor becomes the center of attention. Because the computer does such a perfect job of keeping score, asking questions, and strictly enforcing time limits, the game, though enjoyable, lacks spontaneity.

If a *person* asks, "What's the world's largest and heaviest mammal?", a typical initial response might be "your aunt Ethel." When asked the same question by a computer, however, you're not going to get a big laugh from the machine no matter what you say. It's almost as if by making a computer wait for a response to the prompt "ARE YOU READY PLAYER 3," we're afraid the machine will grow impatient with our rambling and quit the game.

Recognizing these inherent limitations, many software manufacturers have purposely chosen to deviate from the original formula. Some adopted a multiple-choice format which gives you a chance of answering a tough science question correctly — even if you're someone who thinks you need a thermometer to find the number of degrees in a right angle.



8. Who was the NFL rookie of the year in 1969?

3> Calvin Hill

The first computer trivia game to provide players with this format was *FAX* by Epyx. A home version of the Exidy arcade game, *FAX* rewards players for quick answers. The faster you come up with a correct answer, the more points you'll get. Since the game requires two players to share a seat in front of the keyboard (both must be able to reach the number keys at the same time), it is best when played with someone you're really fond of.

The game designers at Suncom thoughtfully solved the seating-arrangement problem by including four "Quick Response" controllers with their trivia extravaganza, *PQ: The Party Quiz Game*. With *PQ*, up to four players can sit at a comfortable distance from the computer while fielding questions from the usual areas of Sports, Science, History, etc. Again, the early birds get the big points as a bonus timer begins counting down when each new question appears.

PQ
The Party Quiz Game
TRIVIA
AT ITS BEST
Suncom

PLAYER 1
AYER 2
AYER 3
AYER 4
1
2
3
4

PQ zips along at an almost frantic pace (the maximum amount of answer time is only 10 seconds), with regular rounds interrupted only with brief disk loads and even faster "Lightening Bonus Rounds." As a result, *PQ* plays more like a TV game show than a serious contest of intellects. For a change of topics, if not necessarily a change of pace, *PQ* owners can purchase supplementary question disks such as General Edition 2, Entertainment Edition 1, Sports Edition 1, Education Edition 1, and even Bible Edition 1 (love those parable questions).

The latest trivia contest to feature a multiple-choice format, *Uptown Trivia*, differs interestingly from the others. While it also provides players with four possible answers to a question, only one answer appears on-screen at a time. You can accept an answer by pressing "Y" or to reject it with any other keystroke. Once you pass up an answer, however, it's gone for good.

Although three correct answers from each of the *Uptown Trivia*'s six categories are usually required to complete the game, this can be adjusted to any number from one to nine. *Uptown* also offers players the option of setting a timer to keep play moving along, or leaving it off for more leisurely play. The game's sound effects can also be toggled on or off. Despite these welcome options, however, *Uptown Trivia* seems overpriced at $49.95, especially in light of recent price reductions by competing trivia software manufacturers. If you can find a good deal on *Uptown*, however, it's well worth adding to your software collection.

Incidently, the official *Trivial Pursuit* arcade game by Sente shares *Uptown*'s method of revealing only one possible answer at a time. Housed in Sente's sleek cabinet with an almost-horizontal screen, and bearing the familiar blue and gold logo, the arcade version is a perfect way for trivia buffs to stay in training during the long work week between weekend gatherings over the game board. Since the questions are taken directly from the original Genus Edition, experienced players should have no trouble making their quarters go a long way in the arcade.

Although multiple-choice formats help to simplify and pick up the pace of many trivia games, some would argue (and justly so) that giving every player a one-in-four chance makes a trivia contest just another game of chance and removes the thrill of competition. After all, how long would the "G.E. College Bowl" have stayed on the air if the show featured the most brilliant students from all over the country drawing straws for scholarship money?

Fortunately, for those of us who believe luck should have nothing to do with the outcome of a trivia game, there are a number of packages which supply players with only one answer — the right one, after the player's own response has been announced verbally. A "Y" or "N" is then entered in response to the prompt "Was Answer Correct?" and play continues. (This sort of gameplay may deliver some merciless players into temptation, however.)

One such program, *Trivia 101*, by Digital Learning Systems includes 5000 questions ranging over an amazing 200 categories. As each player's turn begins, he is given a choice of four randomly-selected categories which range from World Capitals to Beatles. A correct answer is worth from one to six points depending how fast you get it out.

With *Trivia 101* you may elect to play in any of three ways. You can pre-set a point limit which a player must reach to win. You can have the winner be the player with the highest score after a spec-

TV and Cinema 101
Trivia from Talkies
to Trekkies
by Digital Learning Systems, Inc
Entertainment Family
?
12
IBM
Personal
Computer
Software
Challenge your memory for TV and movie trivia. Over 5,000 questions in over 100 categories to stump even the most fanatic trivia expert. Up to 14 individuals or teams can play.

A good trivia player enjoys a challenging question no matter where it comes from — especially if he knows the answer.

ified time limit. You can even play Sudden Death where a single wrong answer means you're out of the game. Perhaps the most appreciated feature of *Trivia 101*, however, is the program's use of large display lettering rather than the standard IBM character set.

A companion program to *Trivia 101* is *TV and Cinema 101*, also by DLS. With categories such as *Star Trek*, Daytime Soaps, and Talk Shows, this is the perfect game for those of use who used to do a lot of homework in front of the television or occasionally skipped it altogether in favor of an evening at the movies. At only $30.00 each, these are two of the first programs I'd buy if I owned an IBM PC.

Another trivia program which requires you to announce your answers verbally is Academy Software's *Trivia Plus*. What sets this one apart from similar programs is that it takes full advantage of the Commodore 64's music capabilities. The program includes the first few bars from over 100 well-known songs. After listening to one of these brief musical interludes you're asked to identify the composer, fill in a missing line, or simply to name the song. If music isn't your forte, don't worry — it comes up in only one of the games eight categories.

If you find the idea of playing a trivia

Continued on page 77

> A multiple-choice format gives you a chance of answering a tough science question even if you're someone who thinks you need a thermometer to figure out the number of degrees in a right angle.

A Roundup of the Programs

<table>
<tr><th>TITLE
0603</th><th>#QUES.
0211</th><th>#CAT
0201</th><th>#PLAYERS OR TEAMS
0402</th><th>INPUT
0203</th><th>ANS.
0110</th><th>DIF.
0106</th><th>HANDICAPPING (Y/N)
0510</th><th>HARDWARE
0406</th><th>PRICE
0204</th></tr>
<tr><td>COMPUTER TRIVIA
Avalon Hill
4517 Harford Rd.
Baltimore, MD 21214</td><td>3600</td><td>6</td><td>7</td><td>k</td><td>M/T</td><td>M</td><td>N</td><td>4</td><td>$44.00</td></tr>
<tr><td colspan="10">COMMENT: Includes both the original board game and a floppy version. The questions are among the most challenging of any trivia game, but lose their bite in the multiple-choice mode.</td></tr>
<tr><td>FAX
Epyx
1043 Kiel Court
Sunnyvale, CA 94089</td><td>3700</td><td>4</td><td>2</td><td>K</td><td>M</td><td>EMH</td><td>N</td><td>1,3</td><td>$27.00</td></tr>
<tr><td colspan="10">COMMENT: Fast-paced and fun but questions repeat too often. Expert level isn't hard enough.</td></tr>
<tr><td>MASTER TRIVIA
Cymbal Software
1200 Route 23
Butler, NJ 07405</td><td>2000</td><td>N/S</td><td>6</td><td>K</td><td>T</td><td>EMH</td><td>N</td><td>3</td><td>$19.99</td></tr>
<tr><td colspan="10">COMMENT: Entire answer must be typed in. Partial credit given for misspelled words.
ALSO AVAILABLE: Children's, Entertainment, General, Sports, and World Facts Trivia (Only $9.99 each). All can be used independently or integrated with MASTER TRIVIA (over 1500 questions each).
ALSO AVAILABLE: Entertainment Tonight with over 2000 questions. ($12.99).</td></tr>
<tr><td>PQ: The Party Quiz Game
Suncom
260 Holbrook Drive
Wheeling, IL 60090</td><td>2500</td><td>N/S</td><td>4</td><td>C</td><td>M</td><td>M</td><td>Y</td><td>1,2,3,4</td><td>$45.95</td></tr>
<tr><td colspan="10">COMMENT: The four custom controllers are well-made and comfortable to use. Features such as multiple modes of play and "Lightening Bonus" rounds give PQ a real game show feel.
ALSO AVAILABLE: General Edition 2, Entertainment Edition 1, Sports Edition 1, Bible Edition 1, and Education Edition 1. Each with over 2500 questions and must be used with PQ. ($24.95).</td></tr>
<tr><td>TRIVIA 101
Digital Learning Systems
4 Century Drive
Parsippany, NJ 07054</td><td>5000</td><td>200</td><td>14</td><td>K</td><td>V</td><td>M</td><td>Y</td><td>4,5</td><td>$30.00</td></tr>
<tr><td colspan="10">COMMENT: Broad range of categories and questions gives everyone an even chance. A real bargain.
ALSO AVAILABLE: TV and Cinema 101 (Same as above but with only 100 categories).</td></tr>
<tr><td>TRIVIA FEVER
Professional Software
51 Fremont Street
Needham, MA 02194</td><td>3500</td><td>7</td><td>8</td><td>K</td><td>V</td><td>EMH</td><td>Y</td><td>1,3,4,5</td><td>$39.95</td></tr>
<tr><td colspan="10">COMMENT: Can be played with or without a computer ($5.00 rebate for return of disk). Features the most extensive handicapping methods of any computer trivia game. Level 3 questions will stump trivia experts.
ALSO AVAILABLE: Trivia Fever Volume 2 ($24.95) with 3500 questions (must be used with original TF) Super Sports Edition ($29.95) with 3500 questions. (Does NOT require original TF).</td></tr>
<tr><td>TRIV MANIA
Star Software
3903 So. Espana Street
Aurora, CO 80013</td><td>6000</td><td>6</td><td>6</td><td>K</td><td>V</td><td>EH</td><td>Y</td><td>4,5</td><td>$49.95</td></tr>
<tr><td colspan="10">COMMENT: Best approximates the feeling of Trivial Pursuit due to the on-screen game board, rolling dice, roll-again spaces, etc.</td></tr>
<tr><td>TRIVIA PLUS
Academy Software
P.O. Box 6227
San Rafael, CA 94903</td><td>3500</td><td>8</td><td>6</td><td>K or J</td><td>V</td><td>M</td><td>N</td><td>3</td><td>$24.95</td></tr>
<tr><td colspan="10">COMMENT: Makes good use of the C64 SID chip by playing short snippets of songs which must be identified. If you like Name That Tune you'll like Trivia Plus.</td></tr>
<tr><td>UPTOWN TRIVIA
Uptown Software
310 Franklin Street
Boston, MA 02110</td><td>3600</td><td>6</td><td>10</td><td>K</td><td>M</td><td>M</td><td>N</td><td>1,3,4</td><td>$49.95</td></tr>
<tr><td colspan="10">COMMENT: Features colorful "Trivia Wheel" and great sound effects. Allows you to easily add or retire players in the middle of the game without affecting play.</td></tr>
</table>

EXPLANATORY NOTES:

#QUES.—Represents the minimum number of questions provided in the package. Most manufacturers claim to have over the amount specified.

#CAT.—Number of categories. N/S = Not Specified.

#PLAYERS OR TEAMS—Maximum number of players or teams that can compete simultaneously.

INPUT—K = Keyboard, J = Joystick, C = Custom Controller (Included).

ANS.—Method of arriving at answers to trivia questions. M = Multiple Choice (Computer provides a number of possible answers from which the players can choose. Computer then lets you know whether or not chosen answer is correct). V = Verbal (Program supplies no answers. Players announce answer verbally and it is then checked against the computer response. Y or N is then entered in response to the prompt "Was answer correct? (Y/N)"). T = Typed (Computer provides no answers. Players enter answer into the computer. Program then announces whether or not the answer is correct).

DIF.—Difficulty of questions. E = Easy, M = Medium, H = Hard. Some programs had questions of varying difficulty but not specific player-selectable ranges. In these cases, the questions were given an overall difficulty rating such as M.

HANDICAPPING (Y/N)—Allows novices to compete on an equal basis against trivia experts by individually adjusting question difficulty, number of questions needed to complete a category, time limit, etc.

HARDWARE—1 = APPLE, 2 = ATARI, 3 = C64, 4 = IBM AND COMPATIBLES, 5 = TANDY. Readers should check with manufacturers about specific models.

PRICE—Suggested retail price at time of writing.

MSX

JAPAN'S COMPUTER GAMBIT

By PEGGY WATT

Imagine plugging an Atari cartridge into a Commodore box and getting *Centipede* instead of gibberish. It hasn't happened — yet. But it's one of the best parts of the still-coalescing MSX universe of software and hardware, a hint of the computer equivalent of the Toyota.

It's not just that you can plug a Panasonic disk drive into a Pioneer keyboard into a Sony monitor, like building a stereo system from the best of each component available. It's that you'll also be able to buy those computer components on the shelves next to the stereo equipment whose brand names they share. And some of those familiar cartridges will have a new look on your monitor, as software developers take advantage of the MSX standard's advanced sound and graphics chips. Add a high-resolution monitor or laserdisc and those space shots will look like they've been beamed down from the shuttle.

The wait is almost over for the MSX. Will these Japanese compatibles really challenge American computer companies and consumers?

For the uninitiated, MSX machines are the long-awaited Japanese threat entry into the U.S. microcomputer market. They're inexpensive — most sell for between $200 and $300 in Europe and Japan, where every other microcomputer purchased is an MSX machine. The lowest of the low-end units sells for about $80. Prices rise with add-ons and quality of monitors.

Dozens of MSX companies — most with names familiar from stereo shops, camera stores and other electronic areas — are scoping out the North American market for introduction of the cheap but promising MSX machines. The first are

You'll see a lot of familiar brand names on MSX equipment. Clockwise from the top: Spectravideo, Yamaha, Pioneer, Canon, Panasonic and Sony. The software for these machines will be familiar, too. Many US software companies are already producing MSX formats of their programs for the Japanese and European markets.

palcom
PIONEER

CF2700
Panasonic

due to arrive very soon. Some MSX fans call the systems the definitive home entertainment center with the computer seen as just another part of the household.

MSX could also expand the meaning of computer entertainment. Yamaha offers an MSX machine that hooks to a musical keyboard and will replace one of its line of synthesizers. A Pioneer system plugs into a VCR to let the creative computerist insert color graphics as subtitles or credits, or create cartoon-video combinations.

And the games will be ready too. Nearly two dozen prominent entertainment software firms have signed up to convert their best-selling packages to the MSX format in time for the first months of the American debut. Activision's *Ghostbusters* is already ready; it's at the top of the charts in Japan, and doing very well in England. Spinnaker is adapting a string of educational programs, including *Fraction Fever*, *Kids on Keys* and *Kindercomp*. Also working on converting their software to MSX — and even examining new games that play on the system's unique features — are Broderbund, Addison Wesley, Sierra On-Line, Thorn EMI, CBS Software and Dilithium Press. Even Human Edge Software is porting over its psych-out software program, *Mind Prober*, previously available only for the IBM and Macintosh. The pseudo-psychological software helps you learn how best to deal with friend or foe depending on the characteristics you describe.

A notable holdout from the MSX trend is Electronic Arts. President Trip Hawkins says he "wouldn't touch it with a 10-foot pole." He says North American computer-users are too sophisticated for what MSX can offer. "It's pretty difficult to force a standard here," he says. He says Electronic Arts may license some of its hottest programs for conversion to MSX systems, but he'd rather spend his company's efforts taking advantage of advanced technology — like the faster IBM and the high-resolution Macintosh — in this country.

Leading the MSX software pack are Ascii, of Tokyo, and Konami, known for its coin-op successes, *Track and Field* and *Time Pilot*. Ascii actually has a head start, since it's led by Kazihito "Kay" Nishi. Nishi is a vice president of American software leader Microsoft and president of Microsoft Far East, which originally developed the MSX operating system two years ago. Not all of Ascii's more than 30 MSX games will come with the computers to the U.S., and some may be changed to better fit American culture.

GHOSTBUSTERS
THE COMPUTER GAME
BY DAVID CRANE
ACTIVISION

Konami recently announced that 22 MSX video cartridge games will be ready for the onslaught of import hardware expected this spring. The selection features a host of sports games, including Konami's *Tennis*, *Golf*, *Baseball*, *Hyper Rally* (car race) and, for the less athletic players, *Pinball* and *Billiards*. Suggested retail for each is $19.95, typical of MSX software price tags.

Many of these games are part of the package that earned Konami half the Japanese MSX software market, and 60 percent of the European sales last year.

> Most MSX machines sell for between $200 and $300 in Europe and Japan, where every other microcomputer sold is an MSX machine.

Consumer Marketing Director Frank Pellegrini says Konami is very excited about the potential of MSX and plans to promote the system and its software heavily in the U.S.

"Despite all the people at Atari and Commodore and the like who don't think MSX is going to make it, I think it can't miss," he says. Odd as it might sound, MSX may succeed in the same way IBM dominates — though with different audiences. Business computer buyers often go for IBM because there's a mountain of software available and they know the company will be around awhile. MSX software is stacking up even as the machines emerge, and it isn't likely Sony or Mitsubishi will disappear, either.

"The compatibility of the MSX system is very important," Pellegrini says. "I believe the American consumer is tired of being burned by manufacturers who develop hardware and software for a system, and then go out of business or drop the line. The whole basis behind MSX is being able to update that machine without losing compatibility."

The entry of MSX machines into the U.S. and Canada should also bring a flood of "new" games that are already sold for the MSX in Japan and Europe, and which will be ready to join the new machines in America. Nexa Corp. of San Francisco, for example, will bring *Starship Simulator*, *Captain Cosmo* and *F-16*, all big sellers in Europe. MSX machines' expandability provides options other machines can't, developer Gilman Louie says. With Nexa's *F-16*, the player can fly the 3-D flight simulation solo or hook the computer's joystick port into another MSX machine to fly against an opponent on another MSX computer.

"It's more realistic," Louie says, "You can look at the screen and see what a real pilot sees; look to your side and see what your opponent's doing." Though *Captain Cosmo* was originally released on the Atari, Louie says his firm is developing new software for the MSX machines, rather than converting existing programs, so they can take advantage of some of the system's capabilities. MSX has better sprites he says — objects moving against landscape or spacescape graphics are better defined and can be manipulated more easily. He says the MSX image is most like the Coleco Adam.

Nexa is also working on two MSX

Continued on page 80

Load & Run

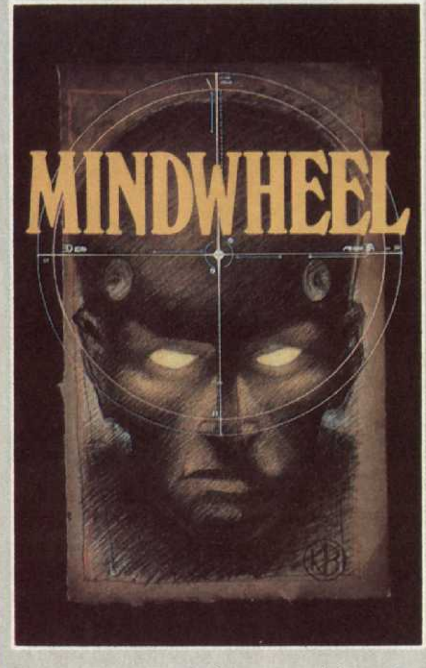
A Discriminating Look at New Software

MINDWHEEL

Designed by Robert Pinsky, Steve Hales and William Mataga
Synapse & Broderbund/IBM PC, Ap, C-64/128K Disk/$44.95

At last — some serious competition for Infocom. In fact, *Mindwheel*, the debut title in the Synapse/Broderbund "Electronic Novel" series (forthcoming titles include *Essex, Ronin, Breakers* and *Brimstone*), could have a revolutionary impact on the whole idea of text-adventure games. For here is a text "game" that doesn't just aspire to the status of literature — it actually has some legitimate claim to that status. All the elements are here: a truly imaginative plot that draws on, but is hardly limited by, the conventions of science fiction and other standard adventure themes; lively characters who appear to have troubles and goals of their own; dramatic shifts in mood and pacing; intelligent, adult content; and a witty and compelling authorial voice. There's also fine poetry, plus word games, puns, and other signs of delight in language for its own sake, and wildly original imagery that is by turns dreamlike, hilarious, fantastic, or disturbingly realistic. On top of this, *Mindwheel* is probably the most playable adventure ever constructed. The programmers have simply junked the stuffy, stiff mechanical elements found in most text adventures, and bravely substituted a game system that, while still a recognizable text adventure, with all of the best features of the other games intact, is uncharacteristically easy to use, incredibly flexible and realistic.

Mindwheel's closest plot parallel is the recent film *Dreamscape*. In a future world on the brink of Armageddon, a lone scientist has perfected a technology that can project a living mind into the dreamlike thoughts of statesmen, artists and others who have had a strong effect — whether for good or ill — on the path civilization has taken. Desperate for some solution to the present crisis, and convinced that the scientist's machinery may be the only way to find one, your world's leaders have selected you to undertake a quest into the minds of four unique personalities: an assassinated rock star who once led a worldwide peace movement; a bloody military dictator, executed for atrocities that apparently surpassed those of the Nazis; a polymath poet, the greatest of his age, who died a gruesome death for love; and an enigmatic female scientific genius, creator of the superweapons that now threaten the world with annihilation. All four are physically dead, but their mind-worlds are still alive, preserved in the electronic matrix you will enter — there to search for a link to the "Cave Master," a mysterious prehistoric being who presided over the birth of civilization, and for an object he holds that may be the key to your world's salvation.



Navigating in these four distinct dreamlands is mechanically the same as most text adventures: you can type in single-letter or whole-sentence commands, travel in ten directions, closely examine objects and people, pick up things, introduce yourself to the other characters and question them. What's remarkable about *Mindscape* is the worlds themselves: each of them — and everything in them — is in such constant motion that, while almost all the situations will repeat, the sheer amount of variation within any one of them is enormous. No two games — even played by the same person in exactly the same way — ever seem to come off identically. Characters (both principals and extras) wander on and off stage at varying times and junctures, doing and saying things differently according to the time you meet them, where you were just before, what you learned from others, what you're carrying, and all sorts of other circumstances. There are also no definite, labeled "rooms;" instead, you'll find yourself in a series of general locations, with a few stable features and lots of highly variable ones. There is weather, for instance, which constantly changes, and the *way* it changes is often a clue in itself. Certain actions can change the entire landscape which, given the logic of dreams, is both sensible and highly disconcerting. And you can even just sit there and watch it change (which may have its own effect on the world around you).

Apart from this inherent liveliness, the actual text of this text adventure is tough to beat for realism. The dialogue has a quality of direct response to your input that is simply gripping. Author Pinsky and programmers Hales and Mataga seem to have collaborated very closely in trying to anticipate and write juicy responses to all kinds of questions from the player — and while there is a limit to this (you can, for instance, get smart responses to nonsense questions), the sheer number of characters who can talk back to you more than makes up for the limitation in total response from any one of them (a few characters will even explain this to you, apologizing rather humbly for being "limited creatures"). The writing also has a decidedly adult air. Pinsky expects us to be able to deal with moral complexities like a war criminal capable of writing sentimental verse about his "Liebchen," or an androgynous rock star rather in love with the image of his own murder; and to appreciate jokes like a fearsome, riddling demon who is also a part-time consultant for the IRS, or his equally nasty assistants, who like the read the *New York Review of Books* and have a habit of vomiting tastefully into their hands after reading your attempts at solutions to the Boss's riddles. And if Pinsky isn't a jolly L. Frank Baum, neither is he a sere and bleak Samuel Beckett: his mad dreamworlds are chock full of a wealth of surreal detail, ranging from a hail of household appliances and office furniture, a vortex of plumbing parts and back issues of *Vanity Fair*, and a toad who talks like Henny Youngman, to a shaven-headed female motorcycle gang, a bloody fountain, and a sweet-smelling black pit filled with the music of wind chimes.

Perhaps not everyone will think *Mindwheel* is truly revolutionary; Infocom partisans will probably charge that it merely amplifies on the interactive-text standard first set in *Deadline*. Either way, it's an experience no text adventure aficionado should miss.

(William Michael Brown)

THE MUSIC SHOP

Designed by Don Williams
Broderbund, 1984/C-64/
Disk/$44.95

This is a beautifully designed music-writing program. As the blurb on the back of the box rightly claims, "Every detail in *The Music Shop* is sharp (even the flats!)." Not only the flats, but all the graphics, the documentation, even the musical selections for the demonstration mode show a Rolls-Royce kind of taste and craftsmanship.

Like other music-writing programs, the main problem is that the actual writing is slower than writing with a pencil and manuscript paper. Manuscript paper, however, won't play your music for you as you compose. For the beginner, I can't think of a more entertaining way to learn about musical notation and sound synthesis.

The Music Shop combines the best features of other music programs, while making some very useful additions. Not the least of the improvements are the window and pull-down menu features — commonplace to Macintosh owners, perhaps, but a real revelation on the C-64. The menus provide every element of composition, including notes, ties (in two sizes), rests and triplets. You can also pick up notes from the composition itself without returning to the menu. There's also an editing menu with word processor-like cut, paste and copy functions, which are a pleasure to use. The program can be operated from the joystick or keyboard; although a few commands can be entered only from the keyboard. The cursor movement, believe it or not, is one of the best features. When you direct the cursor with a joystick, it moves slowly at first and then gathers speed. This gives you fine control while letting you cross the whole screen quickly if necessary.

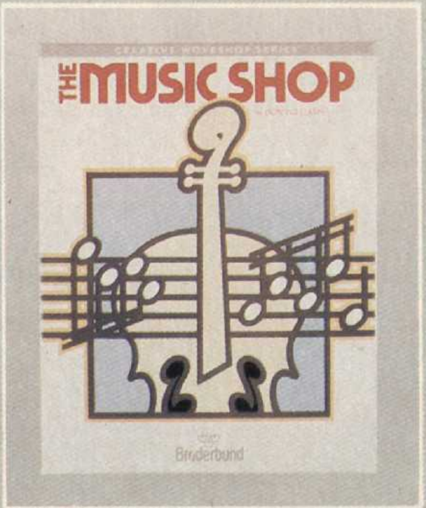
A synthesizer-like screen allows you to design eight "presets," which you can then call for by number in your score. For example, preset one might use three flutes, with some vibrato in voice one, and a higher sustain value in voice three (higher than the given value for flute). You also have the option of hearing the music repeat, while you are fiddling with the sound.

Other features I especially liked were the single-staff option, which gives you room for a much longer piece, if all the notes fit in one clef; and the option of changing the background and notation colors.

The manual explains everything clearly and simply, even in the "Basics of Music Theory" section, which is as good as any I've seen. It is well organized and illustrated, and includes a reference card with a "Quick Start for Experienced Composers" on the back, for those who don't have to read the whole thing before writing the first note.

The demonstration mode consists of twelve tastefully chosen and arranged pieces, from Bach to Greensleeves, including an excellent original piece by the arranger, Louis Ewens. The disk library also includes a single-line, eight measure version of a children's song, to which you can add harmony by following the tutorial.

There are very few problems in this program—there seems to be a bug or two in the way it plays back what's written (leaving out some notes, sustaining others too long). It's a safe bet, however, these have been cleared up since the demo version was released. Another minor inconvenience: since the program moves forward a whole page at a time, you can see staff 1 with staff 2, and 3 with 4, but never 2 with 3. On the other hand, any number of "safety features" have been written in to keep you from losing anything inadvertently — even the "Quit" option gives you a second chance.



Overall, this is an excellent easy-to-use program. I spent three hours arranging Debussy's *Canope* and fiddling with the voices. It may seem like a lot of work for three minutes of music, but it was worth it.

(Henry Jones)

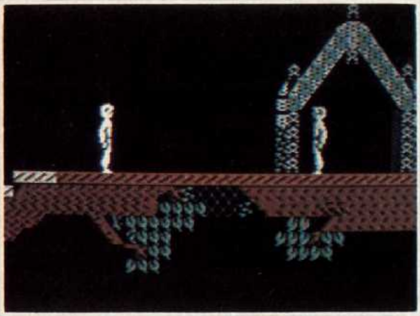
BELOW THE ROOT

Based on the novels by
Zilpha Keatley Snyder
Designed by Dale Disharoon
Spinnaker, 1984/C-64, Ap, IBM PC
& PCjr Disk/$26.95

Below the Root, an adaptation of Zilpha Keatley Snyder's *The Green Sky Trilogy*, proves that fantasy role playing doesn't have to mean hack and slash. Spinnaker is to be congratulated for producing a challenging nonviolent adventure that combines good arcade action with a complex plot.

Set in a tree society where skill in spiritual matters is placed above physical might, the game's goal is to rescue the child leader Raamo and save the Green Sky from sociopathic fanatics. Exploring hidden areas of the trees and finding reclusive psychics helps to raise your spirit power and is the key to solving the puzzle. The fantasy element has been nicely captured in the colorful graphics and intricate layout.

Using a joystick-controlled menu, you can speak with, buy, sell, offer and take items from other characters. You can move around by walking, running, crawling, jumping between limbs, gliding (if you have the delicate robe-like wings of a "shuba"), and, of course, falling — which may result in concussion. Keep an eye on your rest and nourishment levels or valuable time is spent recuperating.



One of the more unusual ways of getting information is through "pensing," or reading other characters' emotions and thoughts. You can do this from a distance, thus avoiding the evil Nekom and Salites who are trying to stop your quest. As you gain more spirit power, your pensing skills increase. You can also gain the abilities to heal, influence tree growth ("grunspreke") and transfer matter ("kiniport"). This last power is especially important because there are places you'll never get to without it.

You have a choice of five different characters, which will determine not only your strengths and weaknesses, but also how you are treated by others. There are certain advantages to playing the female roles (Genna and Pomma). As the charismatic Genna, you will receive more cooperation than if you choose to be the pragmatic and homely Herd. As Pomma, you start with more spirit energy than Charn or Neric.

One nice touch in *Root* is that spiritual improvement can come through empathy with animals. And no matter what abuse you put your character through, from falling out of trees to passing out from exhaustion, the most you'll lose is time — never a life. If you *do* resort to violence (for instance, by using the sharp "Wand of Befal," a magic cutting tool) you'll literally lose the spirit of the game.

The map of the tree towns that is provided doesn't give away any of the surprises, and the game comes with a sample adventure. Educational and thought provoking for children, *Below the Root* is also a good introduction to fantasy role-playing for adults.

(Ben Templin)

MIND PROBER

Human Edge, 1984/Apple II series/Disk/$49.95

This program may give a new meaning to the expression "psych out." Its publishers claim it "lets you see people as they really are," and that you can "get to know their secret likes and dislikes; find out hidden truths about people you thought you knew; and learn how to make the most of relationships and how to prevent emotional letdowns." If this program lived up to all its claims, its users would never know failure, and we could all be perfectly adjusted.

All grandiose claims aside, *Mind Prober* will spit out a very entertaining (if not very informative) appraisal of you or your subject. To get this assessment, you must first describe the subject by responding yes or no to a list of 65 attributes (such as seeking recognition or being care free, joking, deep, egotistic, liberal, etc.) You may only agree or disagree; no "maybe's" or "once in a while's."

Following this process, the program will generate a report including a short general assessment; descriptions of the subject's attitudes toward relationships, work, stress, personal interests and sex; and a summation called "What Makes (the person) Tick." If the report is to be printed on the screen, it takes less than a minute to get there. If, on the other hand, you want it sent to your printer, it can take more than three minutes before it even begins printing. Although I ran the program on an Apple IIe and Apple Dot Matrix Printer, the program was clearly not configured for my hardware; once the printing not only took more than five minutes to start, but the paper scrolled up a full sheet before it began.

Running the actual program is simple and convenient. Almost everything is menu-driven, context-sensitive help screens are one keystroke away and the assessment section is flexible enough to permit you to change your mind forward or backwards as often as you like. The program permits you to store eight assessments on disk.

E=MC2
Copyright(C) 1984
The HUMAN EDGE

I tried the program by describing both my girlfriend and myself, then giving the printed assessments to her and asking her to tell which was which (the reports are printed with only the subject's initials). She eventually gave up and said she couldn't tell. I admit that I had to tell the program I was female in order to have it generate two female reports. But I answered everything else more or less truthfully.

The program is packaged in a 150-page paperback book of which the first 95 pages contain a semi-academic, semi-pop argument for the use of programs like *Mind Prober* (it's got a bibliography over six pages long). It includes the mind-boggling claim that the killing of four students at Kent State University by National Guardsmen during anti-war demonstrations in 1970 is an example of the importance of "reading the other" (page 14).

Call me cynical, but I just can't see recommending this program as anything more than light entertainment. It runs, (with the exception of its print program) simply, flexibly and efficiently, and its assessments are fun to read. In my tests of it, however, it failed to show any more understanding of a personality than I had going into the session.

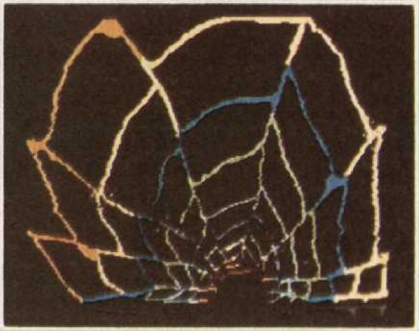
(Myron Berger)

WEB DIMENSION

Designed & composed by Russell Lieblich
Activision, 1984/C-64/Disk/$31.95

"A musical fantasy on an evolutionary web" is how Activision describes *Web Dimension*. Don't let this bit of literary pretension put you off. While this is not the most heart-stopping exciting program to come along lately, it is one of the more original and charming ones. And it makes delightful and entertaining use of the Commodore's musical capacity. This is one game where the score means something besides numbers.

The gameplay is comparatively simple. You're represented by a bunch of musical notes that clamber around a white web trying to freeze moving objects. The objects glide along predetermined paths, leaving colored lines in their wake. You job is to meet the whatever-it-is at a web junction, with the fire button held down. (Pressing the button the entire time is a good idea.) This turns the object into an "energy cluster." If you meet anywhere except at a junction, or go over a colored thread, minor cataclysm occurs and you return to the beginning of the screen. The objects are different on each level, progressing from atoms to astronauts, by way of planets and amoebae. *Web Dimension*'s view of "evolution" is idiosyncratic to say the least.



Joystick control is frustrating at first. Webs are not, after all, rectilinear; they don't have obvious right angles and straight corridors like a maze. So you'll probably spend a lot of time moving the joystick in one direction and seeing your notes head off in another. The good news is that if you just tap the stick, without holding it down, your notes will go only as far as the next junction, which gives you a chance to avoid a collision — even if you don't know whether you're coming or going. There's also an element of strategy: go after the objects in the wrong order and you'll find yourself painted into a corner, as the astronauts and amoebae mock you from the other side of the web.

Once you've turned all the objects into energy clusters, the web flashes different colors and you move to the blue web. In this phase, accompanied by bouncy upbeat music, you get to leave color behind you, as you chase down the energy clusters. The only thing to avoid here is a path that has turned a sort of mauve color; this will take you back to the beginning of the phase. Getting past this section moves you on to the next web with its indigenous organism and unique music — and a higher level of difficulty.

The soundtrack is the best part of *Web Dimension*. The music changes with each level of the web and has an intricate, almost classical sound that makes the most of the C-64's three-voice SID chip. While the game itself is not that thrilling, it's worth playing just to listen to all the musical interludes.

(Louise Kohl)

KARATEKA

Designed by Jordan Mechner
Broderbund, 1984/Apple II/
48K Disk

Lunge, box, swish, retreat. Kick high, block, advance, lunge, retreat. While all this might seem to be the steps to a new Bali folk dance, they are actually movements from Broderbund's karate simulation, *Karateka*.

The story line reads like an old Bruce Lee movie: "Returning home after years of study under a Master of karate, you find your village burned to the ground. Your friends and family are scattered, your bride-to-be stolen by Akuma, the warlord whose oppressive shadow has darkened your village since before you were born." Of course, this storyline is applicable to 80 percent of the kung fu/karate potboilers cranked out from Hong Kong. Predictably, your task in *Karateka* is to defeat the evil warlord Akuma and his many minions and rescue your bride, the Princess Mariko. Whatever the game lacks in plot, however, it makes up for amply with its scrolling graphics and fantastic animation.

Your character, a black belt karate champion, must invade Akuma's fortress. As you advance through the castle, Akuma sends out tougher and tougher karate experts to deal with you. Since the warriors are all skilled in different styles of karate, you'll have to discover their weaknesses before you can get by them and save the Princess.

Using the keyboard or a joystick, you get to select a variety of karate moves, such as high/medium/low punches and kicks. You'll rapidly develop a rhythm to your character's movements, a rhythm that shifts subtly as you face different fighting styles.

The excellent simulation of real karate combat is the most amazing aspect of *Karateka*. No other karate computer game has done a better job of capturing that special feeling and exhileration of expert-level karate competition. As the two fighters flow back and forth across the screen, the movements almost seem choreographed. Plus, there is the gorgeous hi-res graphic of Mt. Fuji in the background, which does much to induce the proper mood for this game.

Surprisingly, Akuma is a pushover. By the time you face him, your karate skills will be so strong that Akuma can be dispatched with relative ease. Later in the game, you'll go head-to-head with Akuma's pet hunting hawk, who swoops and dives at you. There are even two sections with slight adventure gaming overtones (you must figure out how to overcome deathtraps).

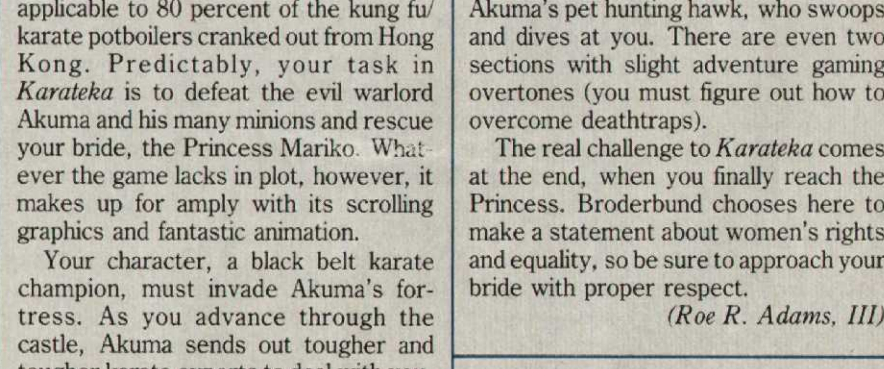
The real challenge to *Karateka* comes at the end, when you finally reach the Princess. Broderbund chooses here to make a statement about women's rights and equality, so be sure to approach your bride with proper respect.

(Roe R. Adams, III)

HISTORY FLASH

Orbyte Software, 1984/
C-64, Apple II/Disk/$29.95

Which constitutional amendment abol-



ished slavery? Who organized the first blood bank? Can you name the woman who won the 1938 Nobel Prize for literature? For the answer to these and other questions, play *History Flash,* the new educational program from Orbyte Software.

Part of the Challenge Ware series, *History Flash* is a combination of Trivial Pursuit and The Joker's Wild. In each round, a computerized slot-machine randomly selects five categories and assigns each a point value. After choosing a category, each player is given a fill-in-the-blank style question to answer. To win, players must accrue five hundred points by correctly answering questions from 10 American History categories: Inventors, Explorers, Presidents, Black Americans, Women, Indians, Expansion, Pioneers, Wars, and the Constitution.

History Flash, to its credit, has many questions dealing with ethnic Americans and their traditions and cultures.

A little bit of chance makes *History Flash* unpredictable. A lucky star appears from time to time which allows a player to choose a new category or double the point value of a category already offered. Since a category worth 50 points can be doubled and redoubled to 100-200 points, a single question can determine the outcome of the game.

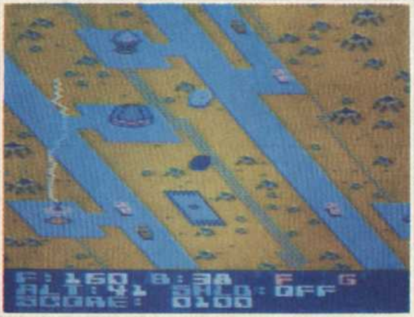
History Flash does have one noticeable drawback: history repeats itself. After a dozen or so rounds, several questions surface again and again, lessening the excitement and making the game stagnate. However, much as this could be disastrous for an action game, it is imperative for an educational program to encourage mastery of the information being taught.

Good facts, good fun and a good price (down from the original $39.95) makes *History Flash* a good educational program. Although intended for grade schoolers, it is suitable for high school students, and even has a few stumpers. Ranging from the noteworthy to the ridiculous (do you know who invented the safety pin?), *History Flash* is for budding triviaphiles and history buffs alike.

(Stephanie Ferm)

BLUE MAX 2001

Designed by Rob Polin
Synapse/48K Disk/C-64



It's been nine generations since Max Chatsworth I was pressed into service to fight the menace of the evil FURXX empire, and ever since the daring Blue Max vanquished his enemy, the world has lived in peace. But now, dark times have returned. Terror stalks the hearts of all, and even the bravest cower in fear. The FURXX empire is back, armed with new futuristic weaponry and an insatiable desire for vengeance. Their goal is no less than the enslavement of the entire population of the Earth. Only one man has the power to oppose them: Max Chatsworth IX.

Synapse must have had a hard time designing this sequel to *Blue Max,* one of their most popular games and the recipient of both public and critical acclaim. Evidently they didn't want to just duplicate the earlier game, but neither did they want to stray too far from the formula that won the game its popularity in the first place. So they decided on a compromise. *Blue Max 2001* is basically a harder version of *Blue Max* with new graphics and play elements.

The gameplay of *Blue Max 2001,* like that of its predecessor, is fast and furious, even if it requires little more than flying *Zaxxon*-like over an enemy camp and blowing up anything that comes into sight. In this game's imagined future, it seems that conventional aircraft have become obsolete; Blue Max IX, for instance, is placed at the helm of a globular flying saucer whose ability to fire its lasers in virtually any direction comes in handy for shooting down a variety of FURXX machines and installations which are given names like "Shield Enhancers" and "Terrain Sequencers."

However, mindless destruction is only half of the game. The other half requires the player to concentrate on protecting Max's saucer from enemy fire and avoid crashing into parts of the landscape. Crashes are fatal, but getting shot is merely debilitating — either impairing maneuverability, shooting and bombing ability or fuel retention. Such damage can be repaired by landing on a friendly runway (of which there are enough to stretch one's credulity—after all, this is enemy territory) where a ground crew not only fixes the saucer, but refills its fuel tanks and restocks its supply of bombs as well. And, while they don't check your oil or wash your windshields, these crews are the only helpful characters in the entire game. And that is where the problem comes in.

Blue Max 2001 is enjoyable, but it is strictly for experts. It is far too difficult to get anywhere in this game without the hand-eye coordination of a diamond cutter and a whole lot of luck. There is no question that it is exciting, but the thrill quickly wears thin when the player's ship is pulverized for the tenth time. This usually happens within a minute of game time.

In addition, much of the attraction of *Blue Max* lay in the fact that it was unique; unfortunately, there is nothing original about *Blue Masx 2001*'s sci-fi shoot-'em-up theme and repetitive gameplay. Even the graphics are uninspired with dull, barren brown and grey backgrounds and simplistically drawn characters. The audio effects are no better.

Blue Max 2001 is not too bad, but you'd probably have to be a Blue Max fanatic to love this game. And comparing it to the original *Blue Max* is like comparing a rustic cottage to the Taj Mahal.

(Charles Ardai)

NOTE SPELLER— A NOTE RECOGNITION GAME

Designed by Lolita Walker Gilkes
Electronic Houseware Systems/
1984/C-64/Disk

Remember the motherly teacher you had for home ec. or typing? Now she's on disk, teaching elementary music theory. She's still saying encouraging things like "Great job!" and "You're okay!," and her response to a mistake is never harsher than, "No, the correct answer is. . ." This is a game for young children; milk and cookies are not included.

The program gives clear instructions: it asks you to choose treble or bass clef, or both (with or without ledger lines); whether you'd like to include long words and how fast you'd prefer to play. Then, you are offered a review of the notes on the staff ("Every Good Boy Does Fine," for example).

The game consists of "words" spelled out in notes on the staff. Naturally, these words use only the first seven letters of the alphabet. After each word appears, a timer starts. When you think you know the word, you stop the timer by pressing the RETURN key. The notes disappear, and you have as much time as you want to type in the word. The program corrects or congratulates you and then plays the notes. Points are scored for speed and accuracy.

It seems silly as a game, but I found myself trying to beat my previous high score, even though note recognition has not been a problem for me since I learned to play "Fur Elise."

Note Speller makes a boring task about as enjoyable as possible. The musical notation is large and clear. The note combinations used are musically meaningless, but this is as it should be — you want to learn to recognize any combination, not just obvious melodies. On the whole, this program serves a limited purpose very well.

(Henry Jones)

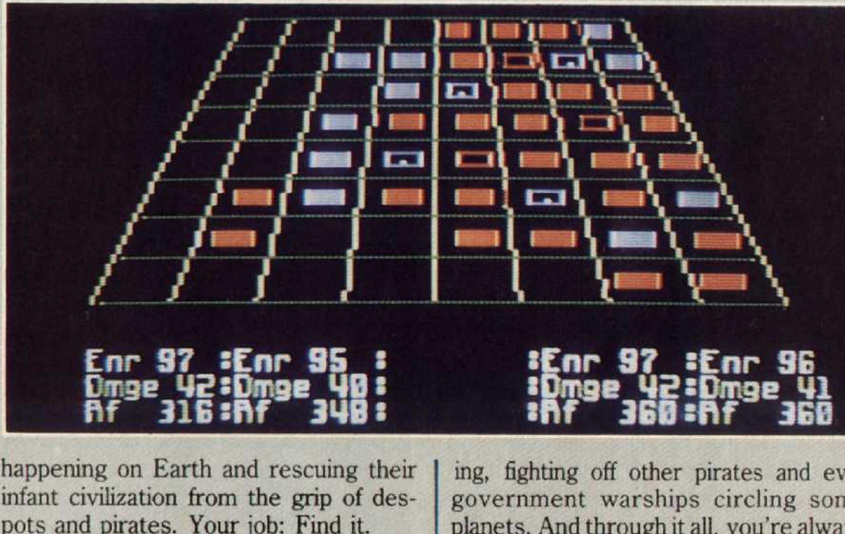
UNIVERSE

Designed by Thomas G. Carbone and William G. M. Leslie III
Omnitrend Software, 1984/
At, Ap, all MS-DOS computers/
four 48K disks/$89.95

If you're a role-playing fanatic — the kind of gamer who just can't get a bang out of a game unless it drags you wholesale into a completely different dimension — then *Universe* is your baby. A connoisseur item aimed at those who love role-playing and "hard-science" sci-fi, *Universe* is an extremely challenging game that offers something for both of these audiences.

The scenario reads like something out of Larry Niven's *Tales of Known Space.* In the far future, humans have developed a faster-than-light drive that allows them to cover distances up to 14 light years in a single jump. But it is not until the discovery of the Hyperspace Booster — a titanic, ancient artifact of alien manufacture — that they are able to travel thousands of light years in one jump. Because only one Booster has been found, travel is strictly one-way. But there are still plenty of pioneers ready to risk never seeing Earth again for a chance at colonizing the depths of space.

As the game opens, a large population of such adventurers has settled an isolated cluster of stars they call the Local Group. Their only contact with Earth is a packet of new technology and random news, shipped to them via Booster about once a month. Without it, the local group pioneers, whose technology lags behind Earth's by a good two centuries, can't advance. Do these CARE packages stop arriving? You bet they do — and with this turn of events, the local group society starts to break down. But this catastrophe is followed by what could be a galaxy-saving revelation: a second Booster exists somewhere in the area. The second Booster, wherever it is, is the only chance the colonists have for returning home, solving mystery of what's happening on Earth and rescuing their infant civilization from the grip of despots and pirates. Your job: Find it.



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Enr 97 :Enr 95 :          :Enr 97 :Enr 96
Dmge 42:Dmge 40:          :Dmge 42:Dmge 41
Af  316:Af  348:          :Af  360:Af  360
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Consider the fact that Local Group space comprises thousands of light years, and you'll begin to fathom the enormity of this challenge. Scattered through this vastness are 20 stars — mostly Main Sequence, with a few old red giants and even one lonely neutron star mixed in — circled by a total of 46 planets. Some of these are naked, airless rocks suitable only for mining; others are huge and dangerous gas giants. There are a few habitable worlds, all with their own governments, cultures, and levels of technological development.

Then there's the matter of the ship: you've got to take out a mortgage (repayable at a high interest rate), buy a hull and then equip it with what you think you'll need for the search. By the time that's taken care of, you'll find yourself just about out of cash. What's an almost-broke space adventurer to do? Get a real job — forget it. As a space jockey, you'll have to go freelance.

These are your employment options: hauling passengers; trading merchandise (there are over 600 different types of goods you can buy and sell); mining on the airless planets; and, for the unscrupulous, piracy. As a pirate, for instance, you'll need weapons and armor, and will be responsible for a huge crew that has to be fed and housed aboard the ship. When unloading the goods they've ripped off, pirates are subjected to the same ridiculous import restrictions, tariffs and low-ball prices that plague the more law-abiding merchants. Sooner or later, you'll have to try your hand at everything: navigation, prospecting, trading, fighting off other pirates and even government warships circling some planets. And through it all, you're always searching for clues to the whereabouts of the lost Booster.

Universe is not for the faint of heart or the impatient. There are over 30 different kinds of graphics and/or text screens — along with dozens of commands — to cope with during play. The game is spread out over four diskettes (two in the MS-DOS version), so be prepared to make frequent disk swaps (although it can be played with one drive, to really enjoy the game practically requires having two drives; lucky MS-DOS owners can back the whole game up to a hard disk).

Omnitrend, apparently realizing how difficult it can be to play such an elaborate game, has spared no expense in making *Universe* as friendly as possible. An internal utility allows you to copy all the disks, so there's no need to worry about the originals blowing up on you when you're on the verge of locating the Booster. The documentation is incredibly helpful: well over 70 glossy pages of explanatory material, charts and quick-reference sheets, completely indexed and packaged inside a loose-leaf binder. Reference updates are available to registered owners as are two free hours per month of access to the company's *Universe* Bulletin Board, where players can trade information about the game, learn about updates and forthcoming volumes in a projected *Universe* series, and even get hints and answers from the game authors.

All in all, *Universe* is the Rolls-Royce of role-playing space adventures. For the true obsessive, it's a must-have.

(William Michael Brown)

MASTER OF THE LAMPS

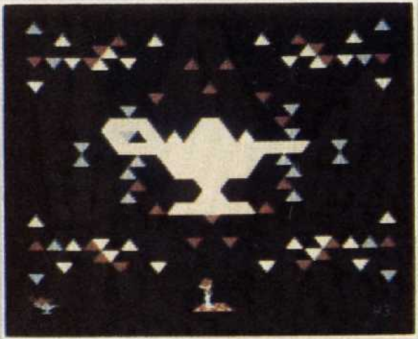
Designed by Russell Lieblich
and Peter Kaminiski
Activision/Disk/C-64

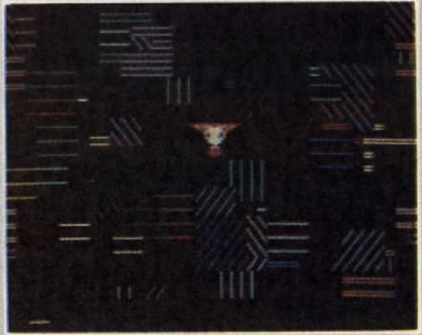
As far as game concepts go, *Master of the Lamps* doesn't exactly make the Top Ten list for originality. The game is divided into two parts, a navigation phase and a "match the colors" phase reminiscent of the old handheld game *Simon.* In the former, the player, cast as an Arabian Knight, must navigate a flying carpet through tunnels made of shimmering diamonds. Once through the tunnels, the player lands beside a row of colored gongs; in this phase, the player is asked to hit the gongs in the order of the notes blown into the sky by a genie. Successfully complete this phase and the Knight is granted one piece of an ancient lamp. Get all seven pieces and the malevolent genie is sucked back into the lamp forever.

Master of the Lamps doesn't merely rehash old ideas — it elaborates on them. In *Simon,* the player had to match four large trapezoids of color, and had only four notes to choose from; in *Master,* there are eight separate gongs — one for each note of the scale. When the genie appears over the horizon with his hookah, the player must be ready to match up to eight different sounds by tapping on the gongs with a small mallet.

You pilot a carpet through tunnels. A beautifully rendered starfield is the backdrop for this sequence, and a musical theme sets the mood for the game. Navigating the tunnels isn't too difficult, because no sharp movements or lightning reflexes are required. This is good since it gives the player a chance to really enjoy the feeling of movement and the jazzy, exciting theme.

The only disappointment in this game is the graphic of the magic lamp under construction. A pale green, amorphous blob, it is nearly unrecognizable until it is completed, and even then it is none too impressive. All of the other graphics in the game, however, are spectacular: the jaunty walk of the turbaned knight as he sidles up to his carpet at the start of the game, the genie, the smokey musical notes that float from his hookah, the finely detailed carvings on the gongs, and even the striated craters on the ground of the gong sequence.





Few games really strain a computer's abilities to their limits—*Master of the Lamps* does. With exceptional music and high quality graphics, it hardly matters that the game is nothing innovative or terribly special. And though it probably won't receive the publicity it deserves, especially since it was released in the shadow of other Activision games like *Ghostbusters,* it is a worthy addition to any software library.

(Charles Ardai)

INDIANA JONES IN THE LOST KINGDOM

Designed by Michael J. Hanson
Alert by Mindscape/Disk/
C-64/$49.95

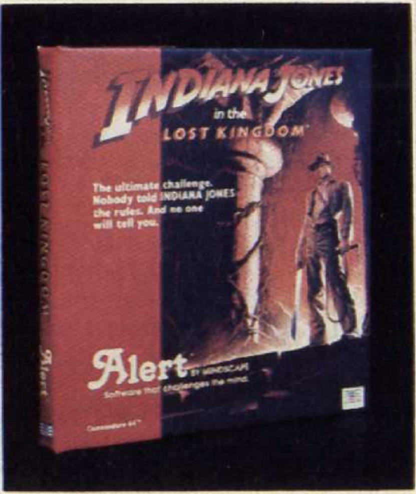
Being a tremendous fan of Indiana Jones, I find it very difficult to condemn any product that bears his name. In the case of this game, however, I am forced to make an exception; not only does it not live up to the standards of excitement and action that any Indiana Jones computer game should have, but it is an absolutely terrible game in its own right.

To start with, other than a passable rendition of the movies' theme music at the start of the game, *Indiana Jones in the Lost Kingdom* has nothing whatsoever to do with Indiana Jones. For that matter, it has nothing to do with kingdoms either, lost or otherwise. What it does concern is six incongruous, unrelated and impossibly illogical game sequences which the gamer must solve in order to find an archaeological treasure. None of the sequences is the least bit enjoyable, partly because the largest challenge they present is to figure out just what is going on ("Nobody told Indiana Jones the rules. And no one will tell you."). Bad graphics, sound, animation, gameplay, control and illogical rules which vary from screen to screen don't exactly make the game any more attractive.

The first screen requires the player to bring three colored balls from the left side of the screen to the right side. Falling from a high perch is fatal, as is touching one of the bats that fly around the screen. As protection against bats, you are armed with a giant candy cane (why not a bullwhip?); if you hit a bat with the cane, it turns into a butterfly.

The second screen asks the player to pick up and carry a set of numbers (yes, numbers) above Indy's head while avoiding a herd of carnivorous tennis balls. Screen three again asks the player to haul digits above Indy's head. Only this time the hauling takes place on the frozen tundra, and Indy is being chased by giant snowflakes.

In screen four, the enemy is a bunch of energy blobs that try to impede Indy's quest, which this time involves hitting blue jewels with the candy cane in order to make some elevators start moving so


INDIANA JONES
in the
LOST KINGDOM
The ultimate challenge. Nobody told INDIANA JONES the rules. And no one will tell you.
Alert BY MINDSCAPE
Software that challenges the mind.

that Indy can escape the blobs.

The fifth screen is the best of the six, with Indy pitted against a multi-headed hydra in an underground cavern, but again bats turn into butterflies when struck. Worse still, once Indy finishes off the hydra, he must travel between three elevators, hitting large Christmas ornaments until a door opens.

And to end the game, a stroke of genius: Indy must teleport around the screen collecting giant goblets while avoiding bug-eyed aliens who travel the screen on little flipping square platforms.

Individually, each sequence is merely annoying — collectively, they are maddeningly irritating. Contrary to Mindscape's claims, figuring out the rules to each screen was not fun. In fact, if it weren't for having to write this review, I would have stopped playing as soon as the first bat screeched onto the screen.

Visually, this is the most unattractive game that I have seen in a long time, and the programming bugs (at least I hope they are bugs) that cause Indy to periodically hover in midair and quiver uncontrollably every five seconds are enough to make one want to shoot the computer screen.

The sounds that the game emits are equally bad, as Mindscape seems to have felt that a chorus of raucous squeeks and screeches would add atmosphere to the game. All that it really adds is insult to injury — there is no question that this game is best played with the sound turned off. More accurately, this game is better left unplayed; prolonged exposure would bring Indy himself to his knees, begging for mercy.
(Charles Ardai)

RICHARD PETTY'S TALLADEGA

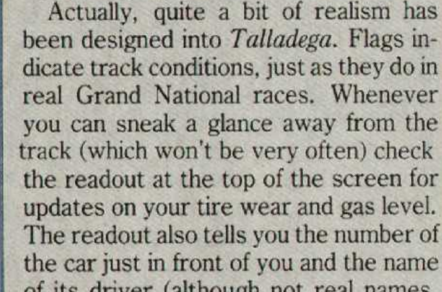
Designed by Robert T. Bonifacio
Cosmi, 1985/C-64/Disk & Cassette/$19.95

For those of you who haven't been breathlessly following stock car racing these past 15 years or so, Richard Petty is usually referred to as "the winningest driver in NASCAR history." NASCAR is stock car racing's sanctioning body. Talladega is both a town in Alabama and a major NASCAR track. As a track, it has almost exactly the same layout as Daytona Speedway's tri-oval, except that the banks are a bit steeper. But you don't need to know any of this to play *Richard Petty's Talladega.*

As driving games go, this one is pretty good, if not terribly unique. You have a choice of three tracks: Tri-Oval 30 laps, Random 30 laps and Random Repeat. Remember which one you choose; they all look pretty much alike. First task is to qualify for the race; this doesn't seem to have any effect on the outcome, but it is ego-gratifying to qualify in the first five.

Actually, quite a bit of realism has been designed into *Talladega.* Flags indicate track conditions, just as they do in real Grand National races. Whenever you can sneak a glance away from the track (which won't be very often) check the readout at the top of the screen for updates on your tire wear and gas level. The readout also tells you the number of the car just in front of you and the name of its driver (although not real names, like Charlie Glotzbach or Buddy Baker). And it indicates when you're in first place, but don't hold your breath — after all, this is Petty's game.

My favorite part of *Talladega* is the pits. You'll see a bit of extra pavement along the track. Slow down and pull over onto it, and the screen changes to show your car from above with your loyal pit crew ready to answer your car's every need. Indicate a particular need on a menu at the bottom of the screen, and watch the crew leap into action. Well, maybe leap is the wrong word. They're not the immortal Woods brothers, who could change all four tires and tank up Cale Yarborough's stocker in under 30 seconds, but they're not bad. One of the menu choices is LEAVE PITS. You'll have to do this eventually.



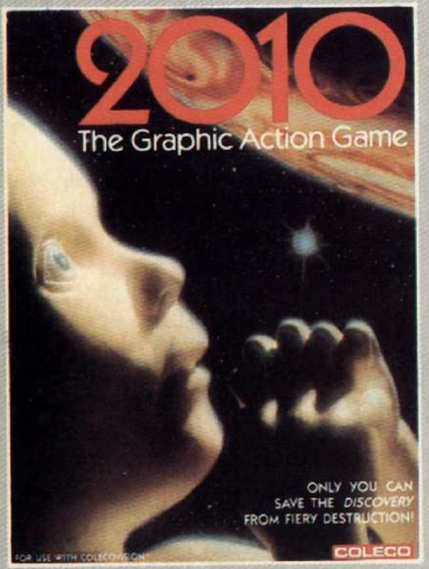
Stock car drivers often say that the way to win a race is to just keep your foot on the gas pedal and turn left. Obviously, there is more to it than that, and there's more to *Talladega* too. You can draft another car if you're running low on gas. And I was amazed to find that hitting the curves (which are obviously banked, even though they don't look it), your car is thrown to the outside by centrifugal force — just like in an actual race. Try to head low on the turns — but don't be surprised if the car in front of you has the same idea. These are smart cars, and they're trying to win, too.

There are some inconsistancies in this program. "Yankee Doodle Dandy" accompanies the title screen; not the most propitious choice for what is, after all, a predominantly Southern sport. (Cosmi says they're planning to switch to some music with more of a Rebel yell.) And for some reason, even though Petty is in the race, it's your car that's the famous "Petty blue." However, *Talladega* is an exciting racing program. You do just about anything on this track that you do on a real one — except win.
(Louise Kohl)

2010: THE GRAPHIC ACTION GAME

Designed by Thomas Fulton
Coleco/Cartridge/Adam

Arthur C. Clarke has been lucky enough to have had two of his novels translated into computer games: *Rendezvous With Rama* (Telarium) and now *2010. Rama* is an excellent adventure game which closely parallels Clarke's book. In fact, the game version of *Rama* is faithful to the book except for a new ending. *2010,* on the other hand, has little, if anything to do with either the book or last year's hit movie. As far as the overall game is concerned, it might as well have been called "Puzzles and Mazes." But no one would have bought a program called "Puzzles and Mazes," and that would have been a pity.


2010
The Graphic Action Game
ONLY YOU CAN SAVE THE DISCOVERY FROM FIERY DESTRUCTION!
FOR USE WITH COLECOVISION
COLECO

Stripped of its movie tie-in and licensed title — not to mention the awful documentation which it would have been better off without — *2010* is basically a puzzle game, and a very good one at that. The puzzles involve finding the correct pathway through a group of circuits so that an electrical current would pass through each circuit only once. Complicating matters is a little spark which floats around the screen, wreaking havoc if it touches a circuit more than once or while an electrical current is inside.

The link between the game and its title is that the circuit screens are supposed to represent the broken electrical pathways of the spaceship Discovery. Only by fixing all of the circuits will the player be able to power up the Discovery's engines and remove it from a decaying orbit around one of the moons of Jupiter. An interesting plot, though it serves as little more than a convenience; any other storyline would have worked as well. The important thing from the player's standpoint is that the puzzles are challenging and a whole lot of fun to solve.

2010 has all the qualities of a perfect game: it is easy to learn (if you don't try to learn from the atrocious instruction sheet), and difficult but satisfying to master. Four skill levels assure that it won't bore the best players and won't frustrate the worst, while fine sound and graphics combine to create an atmosphere well suited to the game. *2010* is a polished, well-written game — don't be put off by its simplistic play. And don't be put off by the title either — *2010* is a game that players who have never heard of Arthur Clarke's books or movies will enjoy.

(Charles Ardai)

MAKE MILLIONS

Designed by Tom Snyder Productions
The Scarborough System, 1984/ Macintosh/Disk/$49.95

Wiki Wiki island looks like a nice place for a vacation — palm trees, sparkling beaches, sunny weather. Unfortunately, you never get to go outside because you're simply too busy trying to gain control of the Aloha Guitar Empire before your rival Humungus does. Making money may pay in the long run, but in the short run, it doesn't do a thing for your tan.

The object of *Make Millions* is to acquire a controlling interest in five companies. You do this by following the stock market like a hawk, buying low and selling high. Once you own 15,000 shares of any concern, it's yours and a sign to that effect is erected on the roof of the factory. Humungus (no fool, it) is evidently following Dow Jones, too (and possibly getting inside information from reporters on The Wall Street Journal) — frequently, before you have time to say Merrill, Lynch, Pierce, Fenner and Smith, Humungus has bought up another little factory. And Humungus' signs are bigger, higher and more ostentatious than yours are. Never mind. You probably have more integrity and class.

You might think that a game in which you have to carry on financial deals, work with big numbers, keep track of workers, production and conglomerate takeovers would be dry and dull. Nothing of the sort. The graphics are lovely and whimsical, and there's so much to do. You've got your phone, you've got your memo board, you've got a window and a computer — it's like being taken to your father's office to play when you were a child. And, in fact, this *is* your father's office but you're not here to play — you've got to find out why he brought you here. You do this by making millions.

You're given $250,000 to start out with. You glean information from the newspaper that is always on your desk. The financial page tells you everything you need to know to make educated guesses about where to invest your money. The information changes on a weekly basis. If a particular week doesn't look too interesting, you can speed up the clock in your office and make a week pass like a day. This is how you know it's a game. In the real world, a day passes like a week.

Besides the newspaper, you receive stock tips and information from several stockbrokers including Hal who works at Stocks R Us. He's the most trustworthy. It's usually a good idea to take his advice. As for the others, use your own judgment. Both Eddie and Carmen looked a little sleazy to this reviewer. Everyone calls you on the phone. If you don't hear from someone — say your stockbroker — you can call him or her. All the phone numbers can be found on your phone list file which is stored in your Mac on your desk.

You receive tons of phone calls. You can either answer the phone yourself or leave it for the answering machine to pick up. You must check your messages periodically, especially if you go out. You must also water your plant. If you don't, it will wilt and die and with the corporate problems you're likely to run into, you won't want the death of one of our green friends weighing heavily on your conscience, too.

Going outside is not really very much fun. In fact, the only place you can go once you're outside is inside again. Inside one of your factories. If you own a controlling interest in it. You'll doubtless find that the workers are slacking off and that production is down. Since your secondary purpose is to make the company profitable, you have to try to remedy this. You might want to seek the advice of a consultant.

While the object of the game is, in fact, to acquire control of the five companies that comprise the Aloha Guitar Empire, the object of this object is to acquire the five keys necessary to open the safe in your office. In this safe lies the answer to why you were called here to Wiki Wiki Island. Once you know this, you'll be free to go out and catch some rays. Hurry.

(Randi Hacker)

MINER 2049ER II

Designed by Mike Livesay
Micro Fun, 1984/Apple II series/ Disk/$39.95

I hate this game. Why have I been

singled out for punishment? Why does my favorite miner slip and kill himself just to spite me? Why must he wait until I've got one move left to clear a screen, then fail to make a jump he'd normally be able to do with my eyes shut. I hate this game, but don't dare try to take it away from me!

Fans of the classic *Miner 2049er* will recognize these symptoms and, perhaps, the disease. Episode II is the same as the first, only more diabolical. The cast of characters has not changed: your favorite miner vs. the mutants and the treacherous terrain of the play environment. The goals are also identical: walk over all pieces of framework, or girders, pass over loot, kill mutants, jump and generally avoid the obstacles laying in threatening wait. In this incarnation, you encounter — in addition to the usual hazards — a flying spaceship, an air ballon, laser defense system, disappearing bricks, a crane and, most deadly of all, a room that covers the framework with water if you're not fast enough.

Like the first game, there are 10 different screens, and you must complete each one in order to move on. The sound can be toggled on and off, and an abort command can be used as a reset. This game is not a revised *Miner*, it is a genuine sequel. In a sense, it gives you screens 11-21 of *Miner 2049er I*. Granted, the first screen here is not all that difficult; however, the ones that follow are. Players who have not yet mastered the first game will find this one tough going indeed.

While the gameplay is first-rate fun, there are a couple of criticisms I've got of the way the program runs. First and foremost: every time the disk is booted, you must tell the program whether they are using a joystick or joyport and, if you choose a joystick, you must go through a three-step alignment process. If the disk were write-protected, I might see the point of this, however, it is not (high scores are saved to disk). Does Micro Fun really think players change joysticks that frequently?

10 all-new screens of arcade-style fun with Bounty Bob
MINER 2049er II
BY BILL HOGUE WITH MIKE LIVESAY
APPLE II or IIe
Works on The Apple IIc
micro fun
THE COMPUTER ENTERTAINMENT DIVISION OF MICROLAB, INC.

Another quibble I've got is that each screen is loaded from the disk individually. This is not an uncommon practice in older games, but surely there are not many 16K Apples around anymore. While this is not a wild action game, the delay in moving to the next level can be annoying.

On the whole, though, *Miner 2049er II* succeeds both as a sequel and in its own right. You may love it or hate it, but you won't be able to ignore it.

(Myron Berger)

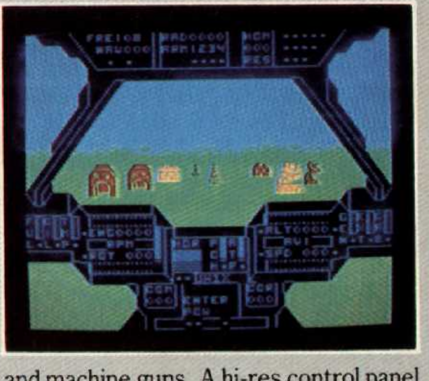
SUPER HUEY

Designed by Paul Norman
Cosmi/C-64/$19.95

While *Super Huey* won't actually get you off the ground, its realistic helicopter simulation can make you dizzy — at least for the first five minutes. For action-packed programming, however, you could find more exciting gameplay in Romper Room. While waiting for the adversary to appear in the combat sequence, I ordered out for Chinese, paid the delivery boy, and was half way through my Moo Foo Chicken before the first enemy helicopter appeared on the screen.

There are four flight sequences to play. In "Solo Flight," you learn the controls while the computer prompts you to maintain optimum altitude, RPMs, and direction. "Explore" gives you experience using the compass, while you map the terrain. (If you mail your plotted grid to Cosmi, they will send you an exact map.) "Rescue" sets up the scenario of stranded comrades who need a lift. Rockets and machine guns are used in "Combat" for a search and destroy mission on an unknown foe.

The joystick controls banking and thrusting maneuvers, and allows you to adjust the throttle and amount of lift. Keyboard input turns on the radar, gives climatic conditions, and arms the rockets and machine guns. A hi-res control panel monitors the usual fuel, temperature, and speed levels. There is also an oil pressure gauge, a magnetic compass, an artificial horizon, and malfunction-indicator lights.



The package includes an outline of the principles of rotary wing aircraft which explains the relationship of the airfoil to lift, pitch and RPMs. The detailed documentation includes handy cards giving a brief summary of basic commands. Early editions, however, do contain some instruction errors that Cosmi says it has cleared up.

Though the sound effects of the chopper blades whirring overhead add a touch of realism, the 3-D graphics are weak and unpredictable. While banking widely to maintain a course, I almost colided with a tree that suddenly appeared in the sky.

If the design could've included more dynamic action sequences, even at the expense of dropping realistic features like the manifold pressure and anti-torque gauges, Cosmi might have what they call a "hit." As it is *Super Huey* should be regarded as only for the dedicated flight simulation enthusiast, but you might want to save your money for ground school instead.

(Ben Templin)

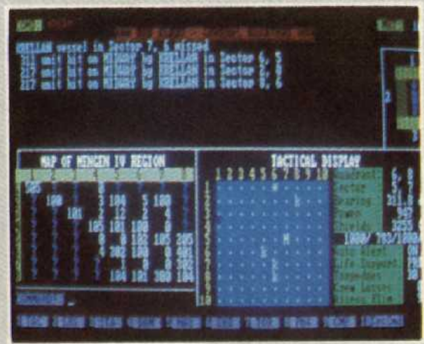
STAR FLEET 1

Designed by Dr. Trevor Sorenson, et al.
Cygnus, 1984/IBM PC, PCjr, TI PC/128K Disk/$49.95

Indisputably the most complex and challenging *Star Trek* style strategy game ever made, *Star Fleet I* offers you the chance to join a futuristic space navy and assume command of an interstellar warship as it battles alien invaders across 64 quadrants of star-studded space. You start out as a lowly Cadet at the Academy. You'll receive a commission as a Lieutenant Junior Grade upon graduating, and get your choice of command on your first mission in defense of the Alliance. Once you arrive at your assigned region, it's your job to explore it; seeking out and destroying a specified number of enemy aliens — and, when you can, capturing and delivering them to friendly starbases scattered within the region. You're rated on your efficiency in each mission; do well enough, and you'll not only get a promotion, but win medals and other honors as well.

Probably the single most exciting feature of *Star Fleet I* is the wealth of detail in its ship simulation. At your fingertips are over a dozen different ship systems, ranging from Primary Offensive Weapons Control over phaser and torpedo fire, and Primary Engineering Commands that can regulate damage control, assist in navigation, and arrange your shield defenses, to a Ship's Computer section that can launch reconnaissance probes, calculate bearings and distances to individual targets, conduct an emergency hyperspace evasive maneuver, or even set up an auto-destruct sequence in case your ship is in danger of capture. Each of the 18 or so commands within this ship's systems structure offers a wide choice of exactly how each command is to be carried out. Once you're in phaser-fire control, for instance, you can specify exactly how many targets you want to fire on, whether you want to shoot to kill or to disable, and how much energy you can spare from your batteries to do the job. Torpedoes can be launched manually or automatically; there is a tractor beam for towing a disabled alien to base, and a transporter for sending a detachment of space marines aboard to capture him; if you're similarly boarded by an alien, or a prisoner escapes and runs amok through your ship, you can direct Internal Security forces to search for the saboteur.

This kind of complexity might have made *Star Fleet I* unwieldy, if it weren't for the fact that the command structure makes extensive use of the PC's dedicated function and arrow keys, and a series of menu-like prompts. Since game time is used only after you execute a particular command, you've got all the real time you need to consult the 98-page *Officer's Manual*, or the supplied quick-reference card, and think about what you're doing before you do it.



You've also got lots of time to "grow into" your command. In the junior ranks, the aliens are slow, their movements are predictable, and your fire does plenty of damage whenever it hits them. As you win promotions, the aliens become increasingly intelligent, executing complex attack formations at will and doing double damage with each hit.

Star Fleet I is a deluxe job all the way. The main screen is the most colorful of any IBM-compatible game I've ever seen, and while it lacks the sexiness of an out-the-window cockpit view, it really doesn't need one to communicate all the excitement of a pitched space battle. The sound effects are well done, and as realistic as the rest of the ship environment. You'll even hear "From the Halls of Montezuma" as your marines prepare to board. There's a real sense of humor here, too; security will occasionally inform you that tonight's Hungarian Goulash escaped from its pot, tried to eat the cook, and had to be subdued by the marines. Along with a very fine manual, it sports a full complement of user features, including a sign-off command that will let you bow out of a particularly unlucky mission without shame, a password file structure that will let all your friends and family play on the same disk, and a File Maintenance feature that lets the owner of the disk modify, repair and restore any file.

With so much to offer, *Star Fleet I* ought to be a hit — and I hear it is, but only underground. The problem seems to be that very few stores stock it, at least at this writing. If your local shop doesn't carry it, you might try writing to Cygnus at Box 57825, Webster, TX 77598. Those who already own the game may want to write in anyway, just to get a copy of the *Officers Academy Training Manual*, a 68-page supplement containing lots of hints and tips on how to beat the game — or for news about *Star Fleet II*, which is already in preparation. If that one is even half as good as *Star Fleet I*, it ought to be a humdinger.

(William Michael Brown)

ANIMATION TOOL KIT 1

Designed by Scott Weiner
Ann Arbor Softworks/
Macintosh/Disk/$49.00

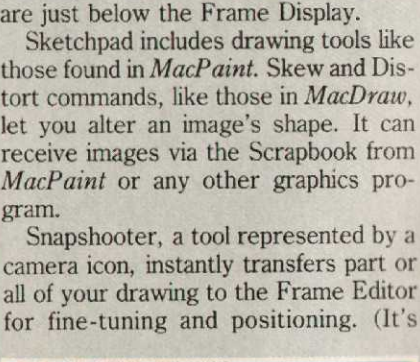
Serious artists as well as amateur MacHackers barely able to draw and chew gum at the same time will be equally taken with *Animation Tool Kit 1*, a clever, specialized program that takes the tedium out of creating computer-generated animation.

The *Tool Kit* enables you to create stills and link them into cartoon strips that can be run backwards or forwards at varying speeds. Five windows, with pull-down menus, and drawing tools control the action. For anyone familiar with *MacPaint*, this program should be a cinch to use.

A narrow, horizontal window at the top of the screen displays the frames that make up your cartoon. A scroll bar at the bottom gives you access to up to 140 frames on the 128K Mac and up to 3,000 on the 512K version. Scroll through the frames and you can see your cartoon in a filmstrip-like format. You draw and edit the images in two additional windows — Sketchpad and Frame Editor — which are just below the Frame Display.

Sketchpad includes drawing tools like those found in *MacPaint*. Skew and Distort commands, like those in *MacDraw*, let you alter an image's shape. It can receive images via the Scrapbook from *MacPaint* or any other graphics program.

Snapshooter, a tool represented by a camera icon, instantly transfers part or all of your drawing to the Frame Editor for fine-tuning and positioning. (It's



quicker to use than the Cut and Paste route.) You can also draw pictures directly on the Editor screen, which includes drawing tools, a paint bucket and a grid. By mouseclicking the Editor, your masterpiece is transferred to the Frame Display, and the Editor is cleared for another image.

Meanwhile, the Animation Window is running completed frames. A horse gallops, clouds skitter above a house, a spaceship blasts off, an engine pumps away. It's up to you. The final window, called Make-a-Scene, regulates the cartoon's speed in sixtieths of a second, as well as its starting point, end and direction. Separate cartoon files can be stitched together and enlarged to fill virtually the entire screen.

Tool Kit 1 is said to be the first in a series. The first udate will add sound effects, while a more advanced version will include tools for background effects. While they're at it, Ann Arbor Softworks should add commands that would let you alter more than one frame at a time: It's not much fun turning a dayscape into a nightscape the old-fashioned way, frame by frame, when a single mouseclick could do the trick.

Also, I'd like to see a command to print more than one frame at a time to help users edit and present storyboards, retain hard copies of their ideas, or even create home-made comic books.

Overall, the *Tool Kit* is a skillful debut. It won't wean kids away from their Saturday morning cartoonathon, but it may well make dad tune it in for ideas he can use on his Mac.

(Stan Pinkwas)

MUSICWORKS

Hayden Software, 1984/Macintosh/ Disk/$79.95

Writing music is so difficult. To begin with there's that treble clef you have to draw that always ends up looking like an ampersand and then there's the actual music itself. So many instruments. There's the flugelhorn and the glockenspiel and the french kiss and all. Who could keep track of how to pronounce them never mind how they all sound. Which is one of the reasons *MusicWorks* comes as such a relief to us all. To use *MusicWorks* you neither have to know how to play the glockenspiel nor draw a treble clef. *MusicWorks* turns your mouse into a musical instrument that's easier to play than the spoons.

When you boot up *MusicWorks* you're confronted with a blank staff. It's your job to fill this in. You choose the note you want (quarter notes, half notes and so forth) from a line of notes above the staff and drag it down to the place you want it. Then you go back for another kind of note and place it in the measure as well. You do this until you have music — or until the page is full. The program automatically writes in 3/4 time and if you try to place too many beats in one measure, it will correct you. You can also change the tempo.

You can also change the instrument. You might start out wanting your composition to be for piano and trumpet and decide later that you'd rather have one voice playing the flute. Each of the Mac's four voices can simulate a separate instrument: one can simulate a clarinet, while another simulates a trumpet, another a piano and the fourth a synthesizer. Variations are also variable, and you can choose from plain, soft, vibrato, tremolo or percussion. This is all done using menus. After you're finished, you can print out your score.

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Fortunately, you don't have to listen exclusively to your own music. There are many preprogrammed selections on *MusicWorks* as well. You can listen to the "Brandenbergs" or "Eine Kleine Nach. . ." (as it's called on the disk due to room problems) or "Fur Elise." And you can play with them just as you can play with your own cacophonic compositions. Change Vivaldi's "Spring" to an all-synthesizer number if you like. See how Pachelbel would sound if written for kazoo. Or just listen to Beethoven or the "Blue Danube." The sound that the Mac can generate is truly remarkable. Never again will anyone be able to condemn Apple computers as monotonal beep machines. *MusicWorks* turns your Mac into the Academy of St. Martin-in-the-Fields or at least St. Martin-on-the-Desk.

(Randi Hacker)

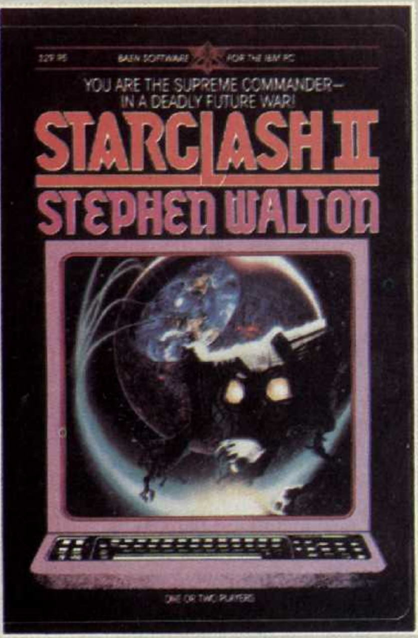
STARCLASH II

Designed by Stephen Walton
Baen Software, 1983/
IBM PC, PCjr and compatibles/
128K disk/$29.95

Too complex to be interesting to children, and too simple to fascinate adults, *Starclash II* is the victim of an overly mathematical, or at least overtheoretical, conception of how to produce an exciting combat simulation — which may make it an interesting illustration of textbook concepts, but hardly an entertaining piece of software. On top of this basic failing, it tries to substitute elaborate player options for imagination, and has poor graphics. The only nice thing I can say about it is that you don't have to own a color monitor to play it; and that's because it's completely colorless.

If you're still with me, the basic scenario here is good old interstellar war. You start out with one home star system, which can produce a certain amount of warships every game cycle, a bunch (you determine how many) of unoccupied star systems spread out over a 3-D map, and an opponent (human or computer-controlled) who's fixed pretty much like you. You (and your opponent) start visiting these unowned star systems, turning each of them into a warship-factory, hoping to get enough production going so that you can mash the other guy by sheer weight numbers. Your problem is that, once you've sent out a bunch of ships to take over some new star, you can't communicate with or recall them while in space until they get there, and the other guy may be sending his people to the same place. If there's a fight, the guy with the most ships usually wins (there are also ties), and takes over. The other main problem is that constant fighting over already-owned systems lowers production capacity in those particular systems (interstellar wars, too, are unhealthy for factories and other living things). To win, you must not only take over every star system, but wipe out your opponent to the last man.

That's really just about it. Like I said, there's no color — also no animation, sound effects, or other signs of life. The command structure is simple, handled mostly by a few data screens and the 10 function buttons; you can learn all the rules in one game, although it takes longer to investigate the few imponderables the game sets up, and thus learn how to pull smart moves.



That might have put it on a par with the elegant simplicity of chess or Go, but this game lacks the inherent aesthetic interest of those two old warhorses. Its one bid for that kind of appeal — the 3-D starsystem map, called the "Tank," which allows you to play on a board with up to 20 systems scattered through up to 58 distinct depth planes — might have saved everything, except that it just doesn't work as intended. Using only standard alpha-numeric and/or punctuation characters to represent the stars, and with a viewpoint-rotation setup that simply clicks from one position to another without any transition, the tank display not only doesn't *feel* 3-D, it's actually downright confusing and irritating. After trying to play with it for over a week, I finally gave up and just played on a 2-D map.

Others — especially 3-D "space chess" fans — may have a different reaction; though, I honestly doubt it. The central interest here is essentially theoretical, treating warfare as a species of economics: How can you most efficiently maximize your use of material and production capacity to achieve a certain military ojbective? That's something any sword-and-sorcery role-playing game will also let you play with, while giving you the additional fun of strange pictures and getting to pretend you're Conan the Barbarian for awhile. If Von Neumann's *Theory of Games and Economic Behavior* is your favorite bedtime book (and not because it cures your insomnia), this could be your meat. If not ...may I suggest a foaming tankard of ale and a round of *Wizardry?*

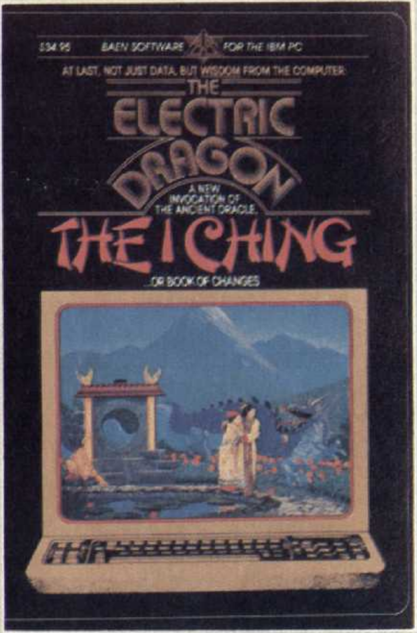
(William Michael Brown)

THE ELECTRIC DRAGON

Programmed by Stephen Walton
Baen Software, 1984/IBM PC
and compatibles/96K disk/$34.95

If you know *I Ching* and want to have it in a computer-readable form, this is the pick of the litter. 'Course, the litter ain't all that large; the only other such program on the market that I know of is Warlock's *Soothsayer,* which, for my money, is not only a little strange in both set-up and mechanics, but also hampered by its dependence on the literal-minded James Legge translation of the Chinese classic. *The Electric Dragon* not only adopts the more authoritative Richard Wilhelm translation, it also comes with a bunch of user features that really eliminate all the more irritating mechanics of using *I Ching,* and lets you concentrate on the main order of business: unraveling your intuition, coupled with the gnomic texts in order to understand the present and predict the future.

If you don't know the book, it is, briefly, an ancient (over 2000-year-old) system of divination in the form of a collection of brief epigrams, parables and commentaries arranged around 64 "hexagrams," or 6-line figures. For all of its long history, wise men, fortune-tellers, quacks and average folks have been consulting it on important problems by, first, asking a question, then generating a specific hexagram by tossing coins or counting random groups of yarrow stalks, and finally reading and trying to interpret the appropriate texts. Doing it the old-fashioned way requires lots of patience; the hexagram-generating rules are very complicated and difficult to remember, using them is time-consuming, and you often end up with more than one hexagram to read when you're through. It also requires plenty of practice; the texts themselves are *very* abstruse. Most Westerners give up when they find that, after all the diddling around, they've got a few phrases that refuse to yield a straight answer on, say, whether you ought to quit that lousy job and become a fireman.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The Electric Dragon understands that, and manages to make it easy for you to get into the book and its many meanings, without sacrificing much of the authenticity of using the book. The opening menu presents you with 6 choices: consult the oracle, review a reading, study a hexagram, review last reading, a toggle for turning extra prompts on and off, and an exit option. Consulting the oracle is beautifully done: you first focus your mind, type into a little on-screen box the question you want answered (or not, if you're shy), and then begin pressing any key at random to generate individual lines of the hexagram (it takes a total of 18 key-presses to generate a full hexagram, so it's pretty much exactly like using the coin-toss method, only without the hassle of keeping a record of each toss). So-called "moving" lines, which generate a second

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> This is obviously a labor of love from someone who really cares.

hexagram, are highlighted on screen as you build the figure. When you've got your 'grams, the program begins giving you the Judgment and the Image for each figure, followed by text focusing on individual moving lines. You can scroll back and forth through all of this text, studying any part of it for as long as you like. When you're finished, you can save the entire reading on disk, along with the date, time and any short comment you'd like to make.

This diary feature, coupled with the Study option, which permits you to examine individual hexagrams at length, are the two friendliest and most worthwhile services designer Walton has performed here. He includes a few of his own readings at the beginning of the diary so you can get an idea of how it's done. The *Ching* really does seem to answer whatever question you can come up with — no matter how personal and odd. After a couple of weeks of puzzling over odd readings, then saving them and watching what happened to me, I found myself going back to the diary and seeing a lot more in each reading than I did originally—and bringing that experience to each subsequent reading.

That's how one learns to use the *Ching* in daily life — a not-unpleasant habit that will probably not hand you a winning lottery number, but can certainly calm you down and let you approach the uncertain future with a little more wisdom and peace of mind than you normally do. Easy to use throughout, with a fine 8-page manual by Steve Rasnic Tem, it's obviously a labor of love from someone who really cares about this old book. *Very* highly recommended.

(William Michael Brown)

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By JOHN HOLMSTROM

MARBLE MADNESS

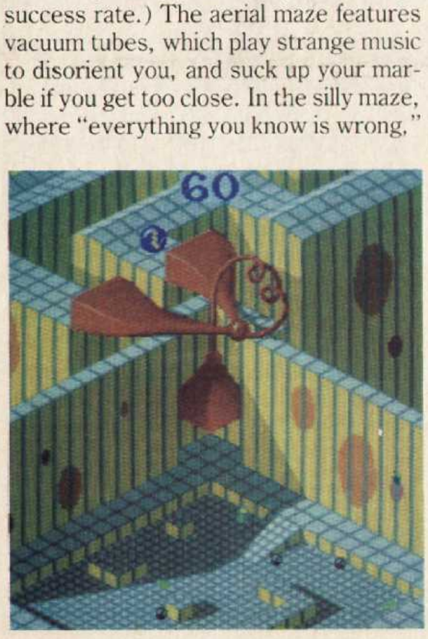
Atari

Hanging around Atari's *Marble Madness* gave me the feeling it was 1981 again. People stopped in their tracks to watch the play and stood around saying things like "I can't wait until this comes out for *my* computer." *Marble Madness* is so different and looks so difficult that some people who watched were afraid to play. Go on and give it a shot, though — it's easier to play than it looks.

The object is simple — guide a marble, with the trak-ball, through a maze to the goal before time runs out. The mazes are where the madness comes in. They're the closest thing to an LSD experience outside of a rubber room.

The game's graphics are very realistic — three-dimensional, with lifelike shading and movement. The marble is about the size of a real one, and as you roll it down a maze, the screen scrolls, and scrolls, and scrolls. Each of the six mazes (practice, beginner, intermediate, aerial, silly, and ultimate) is constructed with walls, floors, ramps, tubes, traps, cliffs, delays, and obstacles.

In the middle of the beginner maze, for instance, you encounter pools of acid, which ooze around on the floor and dissolve your marble if it touches them. In the intermediate maze, wormlike "marble munchers" hop around and try to swallow your marble. (They have a high success rate.) The aerial maze features vacuum tubes, which play strange music to disorient you, and suck up your marble if you get too close. In the silly maze, where "everything you know is wrong," you have to defy gravity and go up, not down. The ultimate maze, which is set in outer space, has more of those pools of acid, and much less room to maneuver.

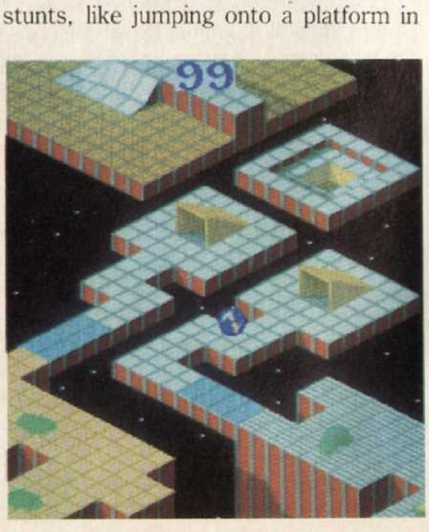


There are nice little touches all over the place in this game. The marbles themselves contain some cosmic stuff that moves around as the marble rolls. If you break a marble, a tiny broom appears and sweeps up the pieces. If a marble suffers a nasty fall, stars and planets spin around and the marble is too dizzy to go anywhere for a few seconds. The soundtrack changes to fit the mood of the game. When the game is moving along, peppy organ music plays, difficult obstacles appear to chaotic music and when the game weirds out, the music goes with it.

This a very fair game. You'll never lose a marble by sheer capriciousness on the game's part — nothing comes out of the blue to bump your marble. Your time runs out only if you don't move fast enough. If you break or lose a marble, you can always get another — there's an endless supply — and you start over wherever you left off. What you lose is precious time. Depending on the difficulty-mode you've chosen, you're given 30 to 60 seconds to complete a maze, and every one is crucial. You keep any left-over time after you complete a maze, and once in a while, if fate smiles on you, a magic wand appears and awards you ten seconds.

Marble Madness's two-player mode offers the best head-to-head competition of any arcade game I've ever seen, turning the game into an exciting race. You can knock your opponent's marble off a platform for extra points, or get in his way and make life difficult. If you're up against an expert player, you won't be totally embarrassed, because they drag your marble down with them when they get to the bottom of the screen, and all you lose is five seconds. Experts can also give you the chance to play the more advanced levels, because if they start a new level after you run out of time — and if you care to pay for it — you can both start the advanced level with the same amount of time. The most difficult obstacles are always right before the goal, which keeps things honest.

Since the object of the game is to complete the mazes, your score is not always a reflection of how well you've played. It does come in handy for deciding who wins in the two-player mode, and, of course, for entering your initials in the high score table. You get 10 points for every second you use, a bonus for seconds left over after completing a maze, points for completing mazes (1000 for the first, 2000 for the second, etc.), bonuses for reaching the difficult parts of mazes, and for performing stunts, like jumping onto a platform in



the practice maze, or knocking off a black marble in the aerial maze.

Marble Madness's biggest drawback is that it's a quarter-eater supreme, no game lasts more than a few minutes, and it tends to be mildly addictive. Another problem is that it can be a very physical game. After a particularly frantic competition, my hands were so banged up, they hurt for three days.

LODE RUNNER

Digital Controls

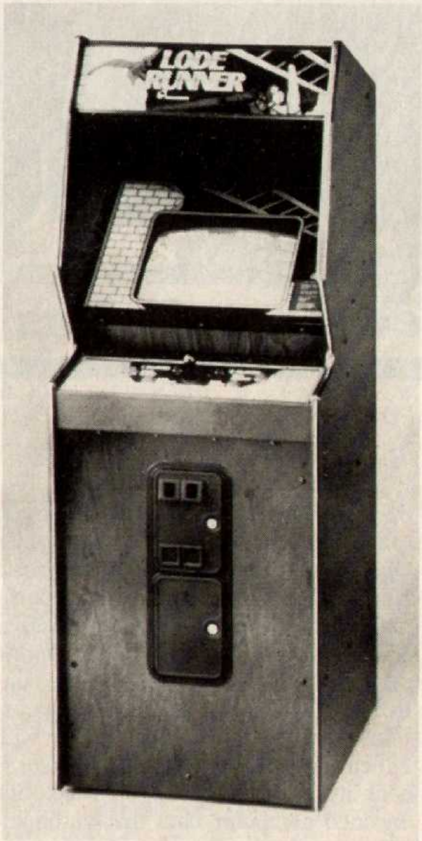
Can you think of the last arcade game to be translated into a successful computer game? I can't, either. The trend to convert arcade games into home computer games seems to be dying out, but now, there's a reverse trend, to convert computer games into arcade games. The first computer game to make it into the arcades was a great one, *Boulder Dash*. Now there's another fantastic game which has made the crossover — *Lode Runner*.

The *Lode Runner* arcade translation is very faithful to the computer original. Many of the arcade maze configurations are similar, or even identical. There are a few twists — a 10,000-point bonus if you don't kill any enemies, 20,000 points if you don't trap any, a 2X bonus if you complete a level before the timer is halfway, 1000 points for landing on an enemy's head, and a "bonus" monster hidden in a brick in each level.

Most of the play elements have survived the transition, like the iris scene-change feature (after completing a level, the screen breaks up into squares and disappears), but one of the more important, the hidden trap doors, is missing. Nonetheless, your skills in the computer game can take you pretty far.

The *Lode Runner* arcade translation is faithful to the computer original.

Lode Runner was a brilliant computer hack — it was meant for the computer. The game generator, which allows users to create and save their own maze creations on disc, lent a whole new meaning to home computer games when *Lode Runner* was first introduced. This version of the computer classic plays more like a souped up, deluxe version of *Space Panic*, one of the first arcade climbing games which was inspiration for *Lode Runner*. The arcade game's only improvement is its graphics, where the original Bungeling guards are turned into cartoon cavement, spiders, and retarded hillbillies. It's odd that *Lode Runner* has been successfully translated for every home computer system on earth, but can't find an appropriate home in the arcades. None of the imagination that colored the computer classic is here.



However, to my surprise, most arcade players I talked with had no idea *Lode Runner* was originally a computer game. I wasn't surprised that people were lined up to play it. Even the comparatively disappointing arcade version, *Lode Runner* is a fantastic game.

It's an encouraging sign that the arcades are watching what home computers are up to. Who knows? Maybe someone will do an arcade version of *M.U.L.E.* someday. ce

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HOME LASERDISCS

An Idea Ahead of Its Time?

By FRANK LOVECE

We watch TV in a dream, fooled into believing we're awake. Images pass through our eyes and settle not into the logical, mathematical, left-hand side of the brain, but into the more abstract right-hand side where dreams and emotions originate, where logic does not hold sway. Television-watching, evidence suggests, is a right-brain activity — passive, even unthinking. A good, stiff drink after a hard day's work.

Interactive video was supposed to change that. Hungry pioneers promised the tools (laserdisc players and accompanying discs) to not just watch television, but to interact with it — controlling the images, deciding where stories should lead, using the TV screen less as a mirror than as a canvas. And interactive videodiscs did indeed proliferate. For a time, you couldn't walk into a videogame arcade without stumbling into more lasers than Luke Skywalker does on a bad day.

The world of tomorrow, however, never materializes as we expect. But it seemed like it would this time. Even today, if you walk into any store that carries videodiscs, you're sure to find a handful of "Level 1" interactive discs. These are the most basic, the ones broken down simply into chapters and feeeze-frames and meant to be viewed in a non-linear fashion just as you might thumb through a picture book. Here you'll find VPI/Vidmax's *MysteryDiscs,* a groundbreaking pair of filmed, live-action detective games, and *The National Gallery of Art*'s "coffee-table disc" of over 1600 laser-sharp works of art you can freeze-frame for study or display. Or Optical Programming Associates' classic *How to Watch Pro Football* and educational/recreational *The First National Kidisc*; or Video Vision's *Space Shuttle* series, which gives you interactive control over NASA shots of our solar system. Arcade-game players (along with educational/industrial/military users) deal in "Level 2" discs, on which are encoded computer data that automatically play any of various possible "branches" depending on your responses. Further up the ladder are "Level 3" discs, run by an external computer and so capable of almost infinite branching possibilities. "Level 4" discs, where several electronic components join to create almost-human interaction, are barely more than a myth.

Yet interactive video didn't ride in to save us from *Celebrity Blunders and Bloopers.* Today, the field is in as much disarray as the Democratic Party. "Except for industrial and military uses," concedes Gene Fairly, president of the seminal interactive-video firm Videodisc

Promotional art for Simultron's now-abandoned "game environment centers."

RDI
RDI
HALCYON
HALCYON
RDI

THE HALCYON INTERACTIVE VIDEO SYSTEM FROM RDI.

Publishing Inc. (VPI), "interactivity is pretty much static at this point." After the rush of the first dozen or so laserdisc arcade games, the few coin-ops introduced since, such as Status Games' *Laser Shuffle*, were developed for legal gambling. Such grandiose plans as those of Simutron, a Vista, CA company that envisioned multi-player game "environments," were dashed. "It wasn't the promised land," sighs veteran producer Marty Perlmutter. "Lots of people reached up on their tippy-toes, but they didn't have their stuff together to pull it off." Yet interactivity, just like the Democrats, is alive and scrapping, still worthwhile, and still waiting for the world to catch up.

The most ambitious new project, perhaps, is the Halcyon system of Carlsbad, California's RDI. The company, in near-bankruptcy two years ago, created *Dragon's Lair* — the first interactive-laserdisc game to enter the arcades. When it and the subsequent *Space Ace* became sudden hits, RDI president Rick Dyer began work on a $2500, Level 3 computer/laserdisc player system incorporating voice-synthesis and voice-recognition technology. Dyer named it Halcyon, he says, for a variety of reasons, but primarily because, "The first syllable of 'Halcyon' is 'Hal' " — the name of the soulful computer in *2001: A Space Odyssey*. "With the modules we'll be introducing, you'll be able to control your whole house. You'll talk to Hal, and it'll talk back. It'll be a robot without wheels."

Arthur C. Clarke aside, Halcyon comes bundled — saddled would be more like it — with a sword-and-sorcery adventure game called *Thayer's Quest*. RDI has also released its *Raiders vs. Chargers* football game ($94), which was sanctioned by the National Football League and uses three seasons of live-action footage. Dyer has plans for a *Dallas vs. Washington* game and a *Thayer's* sequel, as well as for a pricey "Control Module" that would allow unified remote control of a variety of electronic gadgets. But there are problems.

> If you want to play the original *Dragon's Lair* on your PC, you're still out of luck — but at least the hardware's here already.

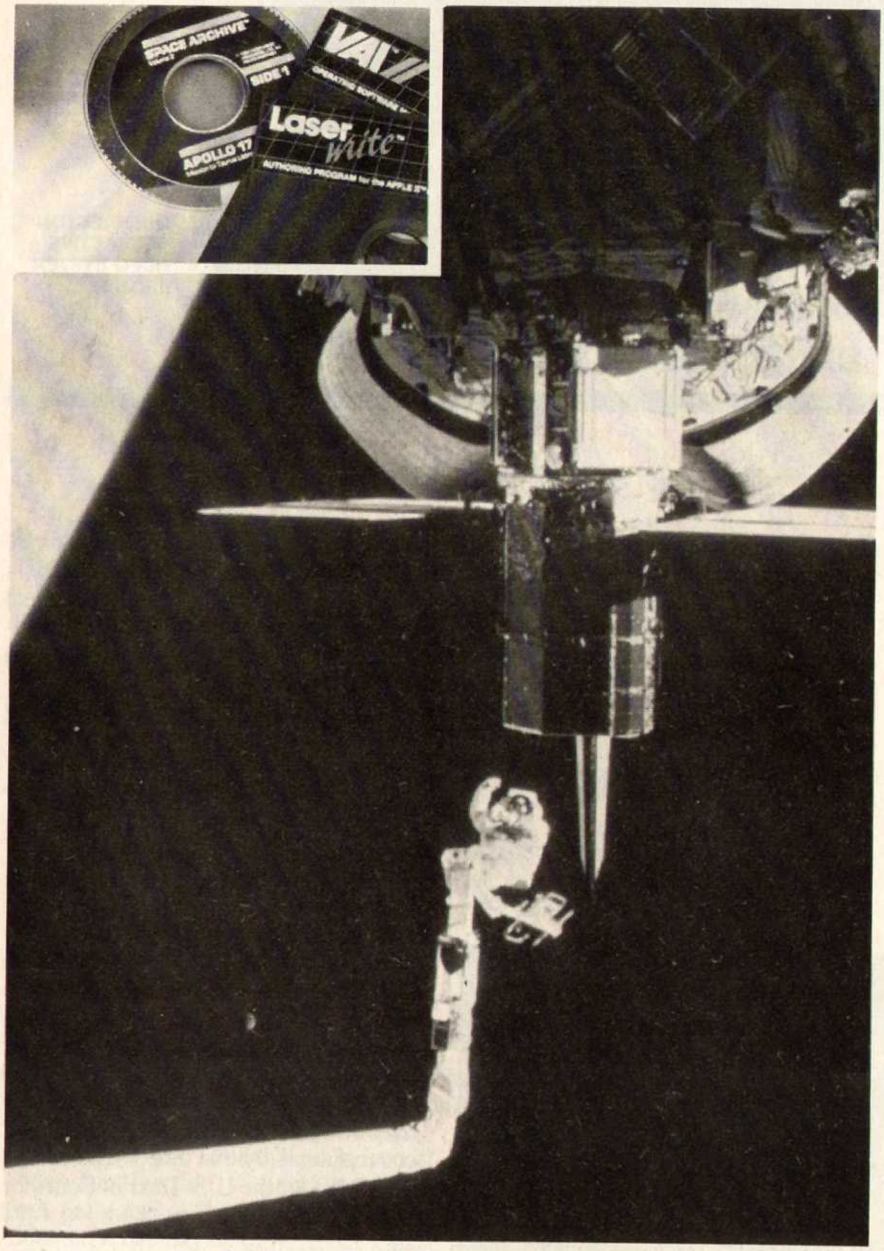
RDI, despite Dyer's understandable cheerleading, is in shaky financial shape — common enough among young companies, but especially important to consumers when you consider the warranty and servicing of a $2,500 item (or $1,700 for the computer portion alone). One creditor reported being strung along baldfacedly, and of suddenly receiving a form letter asking him and all the other creditors to please hold off for 90 days. Dyer, however, insists that "RDI is doing well. We started shipping for real the second week in January, and the creditors unanimously voted to give us a 90-day extension.

Whatever the specifics, RDI isn't alone in the squeeze. In June, 1984, Vidmax filed a $2.9 million breach-of-contract suit against the once-mighty Atari Coin-Operated Games (until recently, a wholly owned Warner subsidiary). According to Vidmax president Eric Nowlen, "Atari signed a contract with us in March, 1984, and we proceeded to develop *Robot Rebellion*," an interactive, laserdisc arcade game designed largely by *MysteryDisc* design-chief Norm McFarland. "Then Warner sold Atari, Atari was falling apart, and Atari just stopped paying the money they owed us. We'd made extraordinary commitments by this time." The case is scheduled for the U.S. District Court for Southern Ohio, in Cincinnati, on April 29.

Vidmax, which has just relocated from New York City to Toronto, is pushing ahead with *Robot Rebellion*. Yet, like its adversary Atari, the company has its own financial burdens. As Vidmax, a partner in the *MysteryDisc* venture, says, Nowlen was "way behind on royalty payments to Marty [Perlmutter]," the producer of the two discs. "He threatened a lawsuit and now we're paying him. We're still amicable," he concludes and Perlmutter agrees, although adding he had to swallow almost $4,000 in legal costs.

Most interactive-disc producers are

HOME LASERDISCS



One of Video Vision Associates' laserdisc programs, "Shuttle Downlink: The Repair of Solar Max."

finding, in fact, that they have to accept educational/industrial/military contracts to keep their consumer projects afloat. While, for instance, VPI and Vidmax scored a critical coup with the Jerry Whiteley-directed *National Gallery of Art*, the $95 disc is designed to be timeless and to make its profit in the long run, not the short. VPI may currently be whipping up a new, $135 disc of Venice to be scripted by Gore Vidal and to contain an interactive, first-person trip up and down the city's Grand Canal, but what keeps the company in bread and butter are projects for the likes of AT&T. Even Video Vision, with its conspicuously successful line of $40 *Space Archive* discs — which use low-cost and public-domain footage — has to keep a hand in its original educational marketplace.

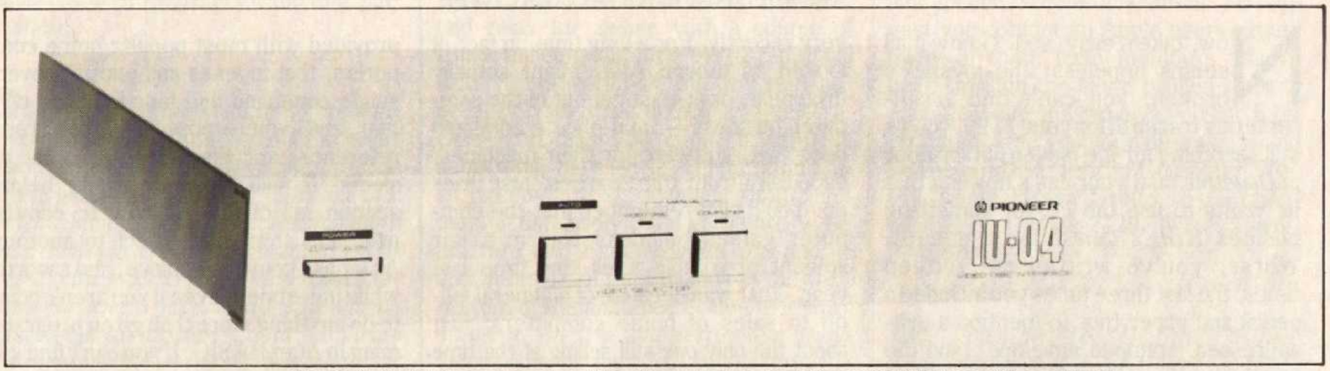
On the other hand, new and future companies may duplicate the structure of New York City's Interactive Media Corporation. Besides producing the innovative *Philip Pearlstein Draws the Artist's Model* — a combination documentary and instructional disc featuring the renown, realist painter — Interactive Media co-founders Richard Horner and Lynne Stuart are highly successful theatrical producers. Though this first of a projected "Genius in Our Time" series is intended as much for schools as it is for homes, Interactive Media's roots are, refreshingly, in the creative professions and not the military/industrial complex.

Yet despite such fancy flights, there's been very little barnstorming. Interactive video is largely in stasis, and the reasons aren't difficult to fathom. Most interactive-video projects were caught in the tailwind of videogames' sudden, sobering dive to a lower cruising altitude. And on the arcade side, frankly, most of the laserdisc games simply weren't so hot. "The bulk of these games could be played even if the disc player were broken," Perlmutter laments. "The disc segments were just background." Other producers carp almost unanimously that the 50-cents-per-play insisted upon by marketing mavens was more than most people were willing to pay.

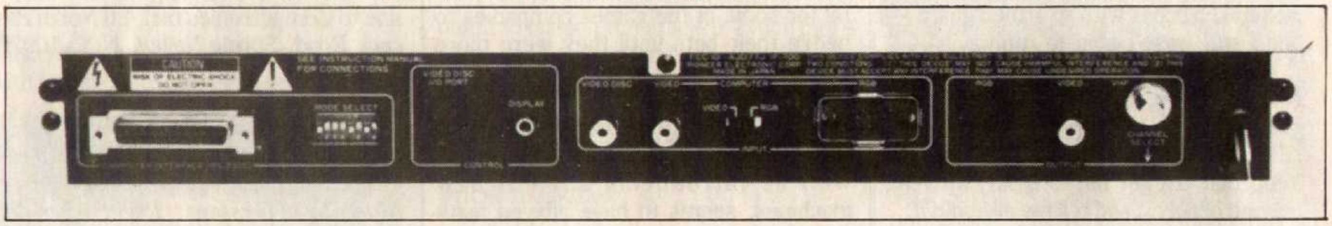
Then there was the problem of "lag time," those seemingly interminable moments of blank screen during which the laserdisc stylus traveled from one segment to another. "Pioneer [the sole manufacturer of this country's home laserdisc players] hasn't busted its ass to make life easy for us who use their machines" seethes Perlmutter. "These damn machines take about six frames to figure out they've been given instructions. And that's a problem [Pioneer disc chief] Ken Kai should have straightened out, because as anyone who's worked with Pioneer knows, the problem *is* correctable, but no outside producer wants to take apart and modify every player he or she uses."

The answer to this problem may turn out to be home-computer enhancement. "The future not only of interactive video, but of home entertainment itself depends on the link between traditional video and the capabilities of even newer technologies," asserts Vidmax's Nowlen. "The wonder factor of all these new technologies becomes enhanced by the superb data base of videodiscs."

Soon we'll grow a little bored with our computers, and start realizing that a laserdisc can play things a floppy never could.



Pioneer's IU-04, like most other video disc systems, is designed to interface with a computer.



In this, at least, Pioneer and fellow laserdisc marketers Magnavox, Sylvania and Teac are anticipating the demand. All current laserdisc players, except for Pioneer's $299 LD-660, come with an 8-pin jack designed to accept specific models of computer interface devices. These devices each carry a standard RS-232 interface allowing hookup to virtually any home computer.

By interfacing a laserdisc player with a computer you can combine the disc player's prodigious storage and playback capabilities with the interactive capacities of the computer. Depending on the particular interface — with most models ranging from $85 to over $1,000 — these devices can let you not only alternate between computer and video images, but even integrate them, allowing you to create your own highly interactive games, instructional programs and artwork. Letting you leap, in other words, to Level 3.

Pioneer sells the most widely available interface module, the $250 model IU-04. Other such interfaces are available from Allen Communications in Salt Lake City; Micro-Ed in Minneapolis; New Media Graphics in Cambridge, MA; and Video Vision in Madison, NJ, among other companies. (Interface devices for industrial VCRs exist as well, but they're limited by the VCRs' slow random accessing.

What does the computer factor provide? Ambivalent Pioneer itself provided one of the best examples of down-home Level 3 interactivity at a trade show sometime back. Picture this scene: You're staring at a TV screen, and see the video world in first person, as through your own eyes. "Your" hands are on the screen in front of you, holding up a poker hand. A cowboy across a table from you asks how many cards you want. The screen flashes a list of discard choices. You — the real you — press a button and see your on-screen hands drop one card and pick up another to hit an outside straight. A dance-hall girl standing beside the poker table kisses "you" in delight. Her face fills the screen and leaves an imprint of lipstick.

Frivolus as this example may seem, it points out the degree of true-to-life response capable with the merger of computer and laserdisc. Just as importantly, it underscores the arrival in the home of what was, until very recently, a laboratory jaw-dropper. It recalls, almost chillingly, MIT's turn-of-the-decade laserdisc tour of Aspen, CO, which let you vicariously tool down streets, explore alleyways, and scope out menus in restaurant windows. And while Perceptronics' $20,000 LaserTour — an exercycle with a projection monitor showing first person biking trails from Switzerland to the moon — may only have pedaled from Neiman-Marcus into a handful of homes, the fact is it is for the home, and not the lab.

Interactive video is a mutant, the first of a new species.

Something as literal as first person, Level 3 interaction isn't something to be taken lightly. Potentially, it's as significant a perceptual leap as that from radio to television. Narrative — whether a novel, a documentary, pantomime or anything else — has been linear since the beginning of civilization. The storyteller speaks, the audience listens. Interactive video, on the other hand, is a mutant, the first of a new species.

As thousands of people around the world learn how to use their VCRs to control TV schedules, there is a new trend coming. Soon we'll grow a little tired of our home computers, and we'll start realizing that a laserdisc can play things a floppy never could. Interface devices will flourish, and today's interactive-video efforts will bear fruit. "1984 and 1985 will be looked on as the interregnum," predicts Perlmutter, "the stage between revolutions. A time of consolidation, not innovation." In the future, TV won't be just a right-brain thing anymore — left will be right, and right will be wrong.

Q&A

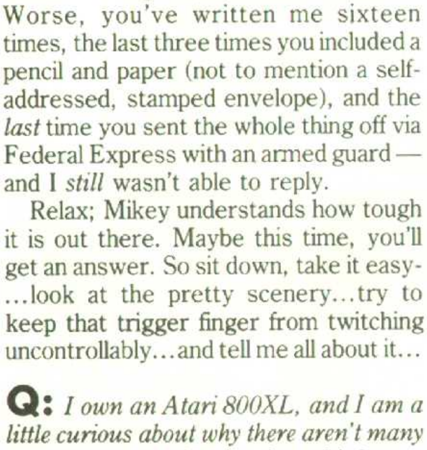
And the answer is. . .

By WILLIAM MICHAEL BROWN

Now, take it easy, son. I know it all seems hopeless: the joystick's broken, you can't find a self-centering trackball for your TI 99, you're still searching for the hidden library door in *Deadline,* and your dad's howling that he wants to use the PC for something besides *King's Quest* for a minute. Worse, you've written me sixteen times, the last three times you included a pencil and paper (not to mention a self-addressed, stamped envelope), and the *last* time you sent the whole thing off via Federal Express with an armed guard — and I *still* wasn't able to reply.

Relax; Mikey understands how tough it is out there. Maybe this time, you'll get an answer. So sit down, take it easy-...look at the pretty scenery...try to keep that trigger finger from twitching uncontrollably...and tell me all about it...

Q: *I own an Atari 800XL, and I am a little curious about why there aren't many new games from Atari or from third-party software companies coming out for the Atari computers. Advertisements for games like* Pitfall II, The Heist, Miner 2049er II *and many others* say *they are available for Atari, but so far I've only seen them for the Commodore 64. Why does everything seem to come out so much faster for the Commodore than for the Atari computers?*



(Steve Holm, Salem, OR)

A: It does seem that way, doesn't it? But not to worry, Steve; *Pitfall II* is indeed out, in cartridge form, for the Atari computers, and I expect most of the other games you mention will be available either by the time you read this or soon after. As for the delays that seems to plague Atari releases. . .well, as you no doubt remember, the company itself went through quite a few changes very recently. For a long time, in fact, it looked as though Atari might actually disappear, or at least get out of the computer business — and once a company does that, software for their machines, especially from third parties, just dries up. You'll also remember that the computer games business was in a fair amount of trouble itself this time last year. That was because of a general fall-off in sales of home computers; just about the only one still selling at the time was the Commodore 64. So it was natural for some of the games companies to hedge their bets until they were more certain that things would pick up. The recent announcements that the new, Jack Tramiel-owned Atari will continue to support the older Atari products, as well as introducing several new machines, seems to have allayed fears about that company's future, and with game sales up again, most of the third-party companies I've talked to seem much more confident about rushing Atari versions of their games onto the shelves.

Q: *I'm a pretty good BASIC programmer, and over the years I've assembled a big collection of magazines with all kinds of type-in BASIC game-program listings. I've only got one computer though — an Atari 800 — and not all of the listings are written in Atari BASIC. I know that there are different dialects of BASIC, but aren't they pretty much the same? Is there any way I can translate some of the non-Atari games so that they'll run on my computer?*

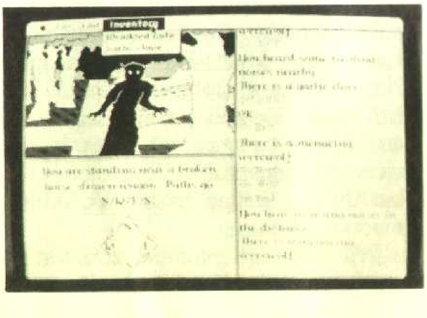
(Chuck Durning, St. Louis, MO)

A: A tall order, Chuck. There's no guarantee that any specific game written for a specific machine can be translated, since many rely on special hardware features of that machine that aren't found in others. It can also be a lot of work, too, since some dialects of BASIC have commands that require new subroutines and even complete restructuring of the whole program in order to be duplicated in another dialect. But if you're serious about this, and very handy with BASIC, you might want to take a look at *The BASIC Handbook* by David A. Lien (Compusoft Publishing, $19.95 paperback). It's a 480-page encyclopedia of over 50 BASIC dialects, including those provided with most popular home computers, that indexes and explains every single command and function they contain, and (where possible) gives cross-references and equivalents in other dialects. It also contains a very helpful section full of tips on how to convert programs from one dialect to another. As far as I know, it's unique, and a worthwhile investment even if you aren't going to do anything more than go on programming in Atari BASIC. If you can't find it in your local computer bookstore, drop a line to Computronics Inc., 50 North Pascack Road, Spring Valley, N.Y. 10977.

Q: *I am the proud owner of a Macintosh, and a big adventure fan. I've already purchased many Infocom games in Macintosh versions. Right after last Christmas, Penguin released* Transylvania *and* The Quest, *and I found these two graphics adventures a wonderful change from the scrolling text of, say,* The Witness. *Then I bought Broderbund's* Lode Runner, *and was amazed again at how much can be done with the Macintosh's graphics capabilities. What I want to know is, why can't games like the* Ultima *and* Wizardry *series, or even* Choplifter, *be played on the Mac? So there's no color — big deal. The Mac more than makes up for that with stunningly precise black-and-white graphics.*

(Jay DeCooyer,
Bethesda, MD)

A: No reason at all, Jay; I'm sure that *Choplifter* would look fine on the Mac, if not better than it does on the C-64 or Atari 800. It's really a matter of the publishers of these games deciding to do it. So far, I've seen no signs that the publishers of *Wizardry* are ready to jump on the Mac bandwagon — but a Mac version of *Exodus: Ultima III* is already out, there's also Pryority Software's *Forbid-*

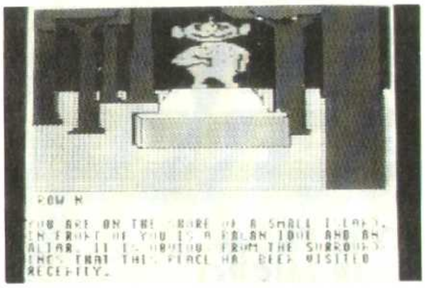


den Quest for graphics-adventure freaks, and Sierra On-Line has even put out a version of *Frogger* for the Mac. Sir Tech *has* done a version of the *Proving Grounds* chapter of *Wizardry* for the IBM PC, so their Apple II chauvinism could be changing. My advice is: wait and see. I'm sure that these now-older classics will be available for the Mac fairly soon.

Q: *I own a Commodore 64 and the game* Blade of Blackpoole, *and I'm* really *stuck. At one point in the game, a man-eating plant asks a riddle: "Give me that which I have in the spring, and you shall pass." The player has to answer this riddle to get to the next screen. I have owned the game for over a year, and I still haven't figured out an answer. Could you please tell me what the answer to this riddle is?*

(Jeff Schlamp, Baileyville, IL)

A: I don't usually dignify such whining with a response, but since your cry is so piteous (you've spent *a year* on this thing!?), I've decided to fork over a couple of hints, anyway. First: Have you ever considered that the plant may simply be asking you to bring him something he likes? Now, ask yourself: What is it that plants like that comes back in the springtime? That should get your brain buzzing. Once you've figured out the name of that thing (it's a four-letter word, by the way), you may need something sweet to capture it and bring it back to the plant. Sorry, that's all I'm going to give up; questions like this give me hives....



ROW N

YOU ARE ON THE SHORE OF A SMALL ISLAND. IN FRONT OF YOU IS A PAGAN IDOL AND AN ALTAR. IT IS OBVIOUS FROM THE SURROUNDINGS THAT THIS PLACE HAS BEEN VISITED RECENTLY.

Q: *This is my second request for at least a few rare hints for* Ultima III. *I know that Origin Systems has a map book out, but I already have most of the cities mapped. I've also found the hidden city of Dawn, marked all my characters (which are now on the 99th level) with the marks of Kings, Fire and Force, have tons of gold laying all over Sosaria, mostly solved the mystery of the Moongates, have around 25 ships docked in the water, etc. What I really need to know is: Where is the Mark of the Snake? Where can I find a shrine? Just what are these Cards? How can I get more magic? Since I already have "exotic" armor and weapons, what are they used for? When am I going to stop asking questions?*

(Mike Lee, Eau Claire, WI)

A: Desperate, huh? Well, you're doing just fine already, Mike; best thing for the stuck adventurer is to wipe off the sword, unbuckle them rusty greaves, and relax for awhile with a couple of Rhine maidens until the old inspirational faculty gets working again (my standard prescription; mail in the five dollars, OK?). But since you're such a stiff-neck about this, here's a few hints: Don't be so greedy for extra magic (you don't need it *that* badly), the cards are to be inserted into Exodus when you find it, and the mark of the Snake is at the very bottom of the unnamed "clues to follow" dungeon on the southern-most island (accessible by sea, Moongate, and the M21 bus on alternate Wednesdays). You ought to consult the oracle in Dawn more often, and pay more frequent visits to Devil Guard and the montors. And while I don't know when you'll stop asking questions, I know I'm going to stop answering them right here (otherwise, Lord British'll kill me).

Q: *I own an Apple IIc, and I've found that some of the Apple IIe software doesn't work on it. Why is that?*

(Steve Lee, Torrance, CA)

A: For a variety of reasons, some software (especially third-party software, and even more specifically games software) originally written for the IIe took advantage of portions of unused or usually unoccupied memory, data entry points, and other "hidden" features of the IIe that were suddenly changed, occupied or moved to other locations when the IIc was developed. Most of that is easily correctable; the programmer just has to change certain instructions so that the computer does the same job, only in a different place. Most new copies of IIe software that had this problem incorporate the necessary changes; Apple has encouraged third-party manufacturers to make them, and the increasing popularity of the IIc helped things along. If you're buying a new game or program for your IIc, and the package doesn't specifically state that it's IIc-compatible, try shopping at a store that will either let you return it, or let you give it a spin on their IIc before you buy.

Q: *My mom and I recently acquired an Apple I, complete with disk drive and several other peripherals, but without any software at all. Since the Apple I isn't being built anymore, is there any software around that will run on it? Please help — we're really in a jam!*

(Donovan Dzurkovich, Reading, PA)

A: A lot of the older Apple II software will run on the Apple I, I'm told, but since I don't have a complete list, I can't make any specific recommendations. I'd suggest you contact an Apple users group; many of them have members who've been through the same problem you're encountering, and can help you find what you need. One good one near you would be the North American Computer Society Apple Users Group, c/o Francis George, P.O. Box 2129, Wilkes Barre, PA 18700.

Q: *I own an Apple IIc, and I've been wondering why it doesn't have the really great sound that some of the games I play on it are supposed to have. Will the IIc take a Mockingboard sound-enhancer? If it won't, what can I do to make the sound on my games better ?*

(Bill Leaf, Cascade, ID)

A: Sorry, Bill, but you're pretty much out of luck. The IIc has no open internal slots to support the Mockingboard, and without such a hardware attachment, there isn't much you can do to improve on the sound coming out of that teensy speaker in the IIc. I hear tell that the guys who built the Mockingboard are working on something for the IIc; as soon as I get the details, you'll read about it in CE.

Q: *Doc, can you tell me if any of the Commodore "speed-loading" programs such as Epyx's* Fast Load *cartridge, will foul up the Commodore 1541 disk drive in any way? If so, is there any safe way to speed it up?*

(Ron Lopez, Visalia, CA)

A: Feeling a little superstitious this month, eh, Ron? Frankly, there's no way a software-only disk-drive manipulator like *Fast Load* could do anything harmful to the 1541, so long as the drive is in good repair to begin with. Relax.

Hard Copy

Book Reviews for the Computer Literate

THE MUSICAL COMMODORE

By Hal Glicksman, music arranged by Laura Goodfriend
Datamost, 1984/$14.95

A frequent problem with textbooks (I've noticed this especially in mathematics and music theory) is that, instead of teaching the subject, they actually just outline it. This may be useful to those who already know the material, and only need to review it; the rest of us are left to struggle through as best we can.

This book takes the problem even further. As expository writing, it is reminiscent of a mediocre high school composition: just clear enough to show that the author probably understands the material. Worse, he manages to combine this lack of clarity with a condescending tone. Despite promises to teach both "the principles of BASIC programming," and "a basic introduction to music," he delivers neither. Admittedly, these are not easy tasks, but they have been done better.

A few examples: the first printed line of BASIC contains a REM statement, but there is no explanation of that command. The next two contain a FOR-NEXT loop, also unexplained; followed by a PRINT statement, ditto. This lack of exposition makes the (many) misprints in program listings very inconvenient. In the final program, a keyboard organ, I found eight of them: two caused the program to crash, five ruined the graphics, and one was simply misleading. The back-of-the-book help is no better. The "BRIEF GLOSSARY OF BASIC COMMANDS" includes words like DOS and ADDRESS, without any indication that these are not commands.

If the principles of programming are absent, the introduction to music is often just plain wrong. For example, "When a note is held over to another measure, a curved line called a tie will join the notes together. These notes which are tied together are called slurred notes." Nope. They're called tied notes. Slurred notes are another creature. Besides, what's a measure? Check the glossary at the back. "MEASURE — The musical interval that marks a repeat of the rhythm." As a professional musician, I should be ashamed to admit this, but this definition really had me stumped. So I checked a few more definitions. "KEY SIGNATURE — The sharps or flats places at the beginning of a composition after the clef sign indicating the key of the music to follow." Not too bad, if you add a few commas and read "placed" for "places." "KEY — The tonal center of a series of notes." Huh? "HALF STEP — Each key on the piano is a half step apart." Right. And every street in Manhattan is a block away. You can't get there from here.

The good points? The keyboard organ program is not bad, once you get it running. Some of the illustrations are amusing. That's about it. The author says, "The description is hard to follow, but the programming is very easy." You bet.

—Henry Jones

THE MUSICAL
COMMODORE
by Hal Glicksman
Music arranged by Laura Goodfriend

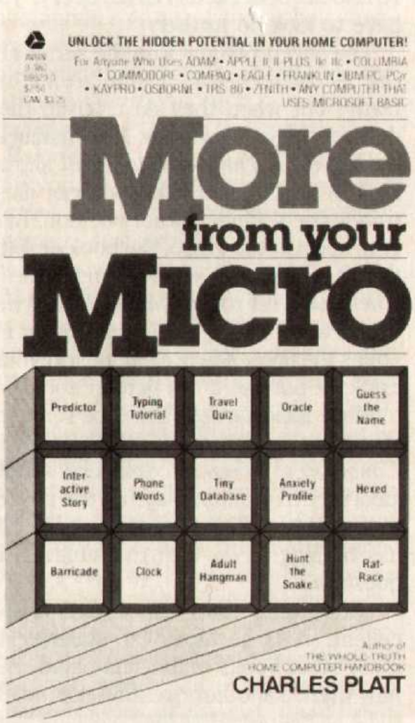
Turn your Commodore 64 into a Keyboard Organ!

MORE FROM YOUR MICRO

By Charles Platt
Avon, 1984/$2.50

Author Platt says he wrote *More from your Micro* because he was dissatisfied with commercial software and disappointed with the programs in computer books and magazines, which "...turned out to be crude games that moved slowly and looked ugly...or arithmetical exercises of no use to anyone." So he became a programmer, and compiled 15 of his BASIC programs into a book. Platt's directions are explicit and exact, the programs (at least the ones I tried) bug-free, and there's plenty of initial explaining about what's going on. And he's always careful to specify just what changes have to be made to adapt each for the IBM PCs, Apple IIs, Commodore, or over 10 other personal computers. Unfortunately, his programs are mostly just as trivial and useless as those he execrates.

This is a short book — it could be titled *A Little More from your Micro* — and much of it is wasted. One program, "Travel Quiz," challenges you to chart a route from New York to San Francisco, city by city. The gameplay, if you can call it that, has the computer list cities for you to catalogue in order: Des Moines to Omaha to Cheyenne...Pretty lame,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More
from your
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Predictor
Typing Tutorial
Travel Quiz
Oracle
Guess the Name
Interactive Story
Phone Words
Tiny Database
Anxiety Profile
Hexed
Barricade
Clock
Adult Hangman
Hunt the Snake
Rat-Race
Author of THE WHOLE TRUTH HOME COMPUTER HANDBOOK
CHARLES PLATT

even for an "educational" game.

"Predictor," a more interesting but equally useless program, has you input a series of zeros and ones. Then it tries to guess your next pick by checking your last five choices and searching for unconscious patterns. Psychologists theorize that we cannot create a truly random sequence, but this baby AI program couldn't predict my moves any better than blind chance. Another winning program turns your computer into a "...not-very-accurate, marginally functional digital clock." Well, at least he's honest.

But *More from your Micro* isn't a complete loss. Though the interesting programs — such as an interactive game, and an "oracle" that gives spurious responses to questions — are too simplistic to be worthwhile, they can be expanded into something reasonable. The hardest part of non-trivial programming (save debugging) is designing an efficient logical flow. Platt is a good programmer; his routines run smoothly and intuitively from step to step. This is top-down programming, the way you were taught to do it, though in reality most of us just sit down at the keyboard and start typing.

If you want to be a game designer, and you're not a natural programmer, you might want to use one of Platt's programs as a model. His "Interactive Story" is especially helpful, despite its not being worth the typing time to play. Platt also includes a section on going further with each of the programs, which suggests possible routes for improvement.

Micro is a short book and much of it is wasted.

The other possible use for the book is as a reference for translating between PC BASICs. But there are more complete texts for that purpose. So unless you're looking for examples of good logical programming structure and are prepared to do some serious work making something out of these skeletons of programs, you don't need *More from your Micro.*

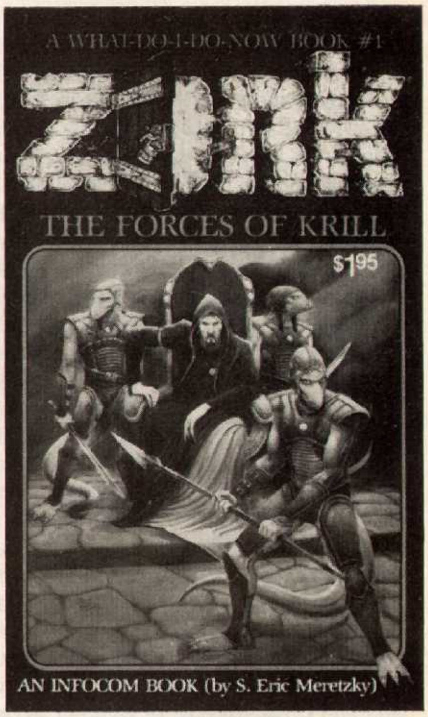
—Dan Goldberg

ZORK: THE INTERACTIVE NOVELS

By S. Eric Meretzky

Tor Books/$1.95 each

For years now, Infocom's *Zork* games have maintained their status as the most popular computer adventure games of all time. Even novice computer users who know nothing about the world of adventure gaming have heard of *Zork*; in fact, many of those novices cite *Zork* as one of their reasons for buying a home computer in the first place. So it made sense for Infocom to branch out, and convert its famous games into the perfectly suited "Choose-Your-Own-Adventure" book format. Now that they have finally done it, only one question comes to mind: Why did they wait so long?


A WHAT-DO-I-DO-NOW BOOK #1
ZORK
THE FORCES OF KRILL
$1.95
AN INFOCOM BOOK (by S. Eric Meretzky)

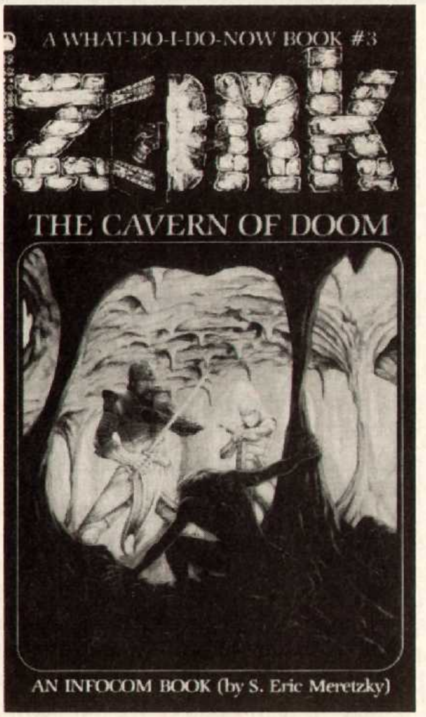
The *Zork Interactive Novels* are part of Tor Books' "What-Do-I-Do-Now" series of adventure novels for young adults. As is characteristic both of the publisher and of Infocom, they are excellent. One factor that raises them above the level of most interactive fiction is the variety of action which the books allow. Obviously they can't be nearly as intricate as the computer games, but they are complex and non-linear enough to approximate the atmosphere of a computer adventure game very well.

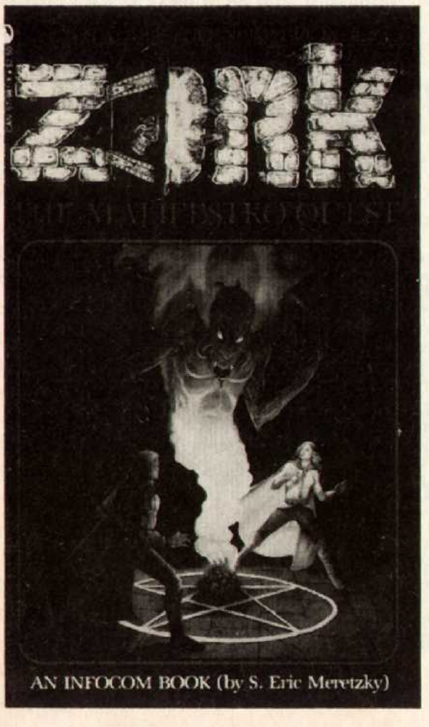
These books are not merely adventures that have nothing to do with *Zork* except a licensed title; written by Steven Meretzky, award-winning author of Infocom's *Planetfall* and *Sorcerer*, they are pure Infocom from start to finish. Not only do they take place in *Zork's* Great Underground Empire, but they actually lead the reader/player into some of the same locations that are found in the games. Veterans of *Zork* have an advantage over newcomers to the magical realm, and they will enjoy the many subtle references to other Infocom games.

The four books of the series are titled *The Forces of Krill, The Malifestro Quest, The Cavern of Doom,* and *Conquest* *at Quendor*, and each one follows the adventures of two ordinary kids, Bill and June, as they get transported to the world of *Zork*. There the two are known as Bivotar and Juranda, the brave and courageous adventurers whose quest it is to save their "uncle" Syovar's kingdom from a variety of evil beings (Infocom fans may recognize Krill as the evil warlock from *Enchanter* and Jeearr, the villain of *Conquest at Quendor*, from *Sorcerer*).

As each adventure unfolds, the reader is drawn right into the action by Meretzky's felicitous use of the present tense for narrative. At important plot junctions, decisions are left up to the reader, and the choices that the reader makes influence the outcome of the story. However, unlike most interactive novels, there isn't always one right and one wrong choice, and when there is, the wrong choice doesn't always mean certain death. Many choices are surprisingly broad ("Should we use magic or weaponry in this adventure?" for instance), giving the reader a real feeling of control over his fate. Open-ended prompts encourage imaginative respones rather than passive page turning, and add to the overall enjoyment of the stories.

All of the books are good, and it is hard to single one out as the best. However, my personal favorite was *The Malifestro Quest*, an excellent example of Meretzky's innovative writing style and unique sense of humor. In *The Malifestro Quest*, Bivotar and Juranda have to rescue Syovar and the entire land from the clutches of the evil wizard Malifestro. En route to the castle of this nefarious character, you must cross the Great Flathead Mountains, avoid a band of thieves, conjure up a demon, outwit a cyclops, and try to control a bizarre flying carpet, courtesy of the Frobozz Magic Flying Carpet Company.


A WHAT-DO-I-DO-NOW BOOK #3
ZORK
THE CAVERN OF DOOM
AN INFOCOM BOOK (by S. Eric Meretzky)



The Malifestro Quest is logical and enjoyable, much more so than many other interactive novels which have uninteresting choices for the reader to make like "Should we go right or left?". What's more, it has the best climax of the four — a wild wizard's duel between Syovar and Malifestro.

The illustrations that are sprinkled throughout the stories are very good, and the cover paintings are magnificent. And if you've always wanted to know just what a lurking grue looks like or how Krill looks bedecked in all his finery, you have to look no further.

These books are pure Infocom from start to finish.

The only problems with the series are the inconsistencies. There aren't too many, but when they do crop up they detract from the stories. For instance, the cover of *The Forces of Krill* shows Krill to be a human, while interior illustrations depict him as a fiery demon. Krill gets killed at the end of the book despite the fact that he is alive and well in *Enchanter*. A Frobozz Magic Wizard Escape Potion in *The Malifestro Quest* invokes the presence of a gnome if Bivotar drinks it but not if the demon does.

More importantly, there are some instructions in the books, most notably in *Conquest at Quendor*, that are simply incorrect. A prompt may tell the reader to turn to page 114 when in fact page 114 has nothing to do with the situation in question.

Other than that, the series is excellent, It is certainly far superior to most other books of the same kind. But now there's another question that needs to be answered: How long will fans have to wait for the next installment? And what about Planetfall?

—*Charles Ardai*

A WHAT-DO-I-DO-NOW BOOK
ZORK
#4 CONQUEST AT QUENDOR
AN INFOCOM BOOK (by S. Eric Meretzky)

ELECTRONIC TRIVIA

Continued from page 47

game with your computer intriguing, but aren't ready to part with a lot of cash, Cymbal Software offers a complete line of inexpensive trivia programs including *Children's*, *Entertainment*, *Sports*, *General*, and *World Facts Trivia*. For only $9.99 each, don't expect to get a huge number of questions or fancy features. Answers, for example, must be typed into the computer in full, and the difficulty level of each question is randomly-selected by the computer.

If you're not bothered by these limitations you may want to consider Cymbal's *Master Trivia*. You should be warned, however, that while it costs twice as much as these other versions it comes with only 500 more questions. A far better deal is Cymbal's Entertainment *Tonight* trivia game which delivers the same amount of questions as *Master Trivia* (2000), but is priced at only $12.99.

Finally, if you're still not sure whether you would prefer to conduct your trivia contests around your home computer or the game table, there are a couple of trivia packages which let you do both. *Trivia Fever* by Professional Software offers gamers the best of both worlds by including a spinner for category selection, a question book with thousands of questions, and a pad of tally sheets in addition to the game disk itself, thus making it playable with or without a computer. Professional Software even offers a $5.00 rebate to buyers who wish to return the game disk. PSI has packed the game with a variety of features. For example, the points needed to complete a category and time limits may be adjusted individually and you may elect to have the computer select each player's categories randomly, or let players choose their own categories. In addition, players decide, on every turn, the difficulty level of the question they will be required to answer. Since easy questions are worth only one point and the most difficult are worth three, this feature adds a whole new strategic element to the game.

If you feel, as I do, that *Trivia Fever* really shines brightest as a computer game, you'll not only want to hang on to the disk, but pick up Volume 2 as well. There's also a Super Sports Edition which can be played without the original disk.

Avalon Hill's *Computer Trivia* is similar to *Trivia Fever* in that it can also be used with or without a computer. *Computer Trivia* was originally a board game, and the floppy version never quite lives up to its more traditional counterpart.

Computer Trivia's main problem is that often, when played in the multiple-choice mode, most of the ten possible answers can be eliminated immediately because they bear little or no relation to the question. For example, it doesn't take many players too long to rule out Don Knotts, Richard Nixon, Lassie, or the vernal equinox as possibilities for the player who hit two home runs in the 1976 World Series. While this kind of type mismatch can often result in some hilarious combinations, the challenge of the original board version will have most players returning there for their trivia fix.

Whether the pursuit of trivia is a pastime better suited to the computer screen or the game board, is really a matter of personal taste. Douglas Gunther, trivia show host for a New York radio station, commented in *The New Yorker*, "a good trivia player must know everything from Greek philosophy to Dobie Gillis, and from Godzilla to Einstein." A good trivia player usually enjoys a challenging trivia question no matter where it comes from — especially if he knows the answer. **ce**

WORLD WAR III AND COUNTING

Continued from page 25

scribe the mathematical relationships at the heart of any computer game, rows and columns of input and possible outcomes had to be studied. Ultimately, gameplay would have to be tested by some of *The Other Side*'s eventual users. Notes Snyder: "Games really aren't designed by individuals, but by their culture."

In the process of play-testing many early concepts had to be abandoned. "Our generic model was originally much more real: the countries looked more like the U.S. and Russia, the fuels were specific resources like uranium and bauxite. But players' political preconceptions forced us to get away from reality." Almost from the first, Snyder was troubled by how to make the ultimate downside risk — the end of the world — from seeming an attractive alternative in this computer game. "I wanted to raise the stakes so high you would never be tempted to sacrifice the world. I was toying with the idea of a software routine that would jam your disk drive and ruin it if the world ended."

Game theory, a branch of mathematics that deals with decision making, provided a neat solution for explicity placing a premium on cooperation by reference to what decision theorists call the "prisoner's dilemma." Originally formulated by A.W. Tucker, the "prisoner's dilemma" problem weighs the relative merits of playing a strategy cooperatively or uncooperatively with an opponent. In the original prisoner's dilemma, the choice involved betraying or not betraying a fellow crime suspect. In Tom Snyder's game, each team must start play by deciding whether to build the bridge through collaborative effort or in competition to be first to complete it. "The only way for both sides to communicate is over the Hotline," Snyder explains. "So your first exchange is something like 'How are you playing this game?' If you're playing cooperatively, you'll say so. But if you are playing competitively, you won't want your opponent to know, so you'll still say you're playing cooperatively."

Strategies were rendered even more complex with the addition of a *deus ex machina* called C.A.D., the Computer Assisted Defense system. "C.A.D. will make your country behave in ways you can't anticipate. My wife cried when C.A.D. betrayed our opponents, who were playing cooperatively with us," Snyder recalled. Then again, the amount of information that must be weighed in a three-minute turn can also lead to mistakes of omission. Snyder says that on one occasion "my wife got pretty upset when we forgot to send money we had promised our opponents and they started to think we were lying to them."

With all these subtleties, can even the most generic of war games really teach today's children to wage peace? Snyder is quite candid on this point: "All you can wish in any teaching or software is to create a stimulating environment. *The Other Side* is like a field trip, which is totally dependent on having a good teacher along. It's not an ultimate tool. But over the next twenty years we may change things if we keep designing games like this."

FINLANDIZE NOW

Creating the first "adult" un-war game was the goal software innovator Chris Crawford set for himself in the design of *Arms Race*. "My motivation was artistic rather than political," he admits. The former head of computer game development at Atari also chose to program this as his first work on the Macintosh, a machine with a more adult ownership than low-priced personal computers. The result of his efforts will be published by Random House, but at the moment, Crawford has reached the point in the design process where he just wants to tear the game apart and start over almost from scratch.

"It happens every time I design a

game," he says. "I feel like Dr. Frankenstein. The monster is on the table with all its organs in place. The lightning bolts are flying around. The body will convulse and the heart start to beat and then stop. When this happened with *Eastern Front*. I got very depressed. Then I ripped whole chunks out and rewrote it. The game was ready for shipping ten weeks later."

For Crawford, designing a computer game is an organic process that begins with a message he wants to convey to the player. In his pioneering war game *Eastern Front*, a simulation of Hitler's 1941 campaign against Russia, the message was the relative importance of military effectiveness vs. firepower. "Americans often confuse the two," he contends. "Hardware can't replace the skill with which it's used. In weapons negotiations, we tend to think only in terms of numbers of warheads and throw weight." Crawford's subsequent games evolved from *Legionnaire*, which pitted Caesar's armies against barbarian attackers; to more interpersonal scenarios like *Gossip*, a variation on the old party game of Telephone, and the epic *Excalibur*, a simulation of King Arthur's efforts to unify Britain. "*Excalibur* took ten hours to play. Its message was that leadership is a combination of brute force and graciousness." Though neither *Gossip* nor *Excalibur* received wide distribution, they set the stage for *Arms Race* — "a second generation product," according to Crawford.

"I wanted to work in a new artistic genre. War games all had the same goal: kill or be killed. I wanted to work with a wider array of conflicts, to create tense, gripping, moving entertainment that didn't require shoot-'em-ups. Every game must have conflict to force interaction between players. But there are other areas of conflict in life besides shooting and killing."

When he set about writing *Arms Race*, he found the game's central message evolving and changing. "At first I wanted to teach Americans about the complexities of global geopolitics. I wanted to make players more sophisticated about such facts of life in the world as Finlandization, a concept few Americans are aware of." Named after the neutralization policy followed by Finland after World War II, this tactic involves maintaining a nation's independence by remaining non-aligned while in the shadow of a superpower.

Though details of the game are still unfinished, the playing field of *Arms Race* consists of today's world map. Opposing blocks of nations are faced with such contemporary policy issues as sending troops to foreign countries and managing global resources. Insurgencies crop up to tilt the balance of power, while the U.S. and Soviet Union cannot declare war without putting the rest of the world in danger. By the time the game was first implemented, its message was the need for multi-polarity in what has been a bipolar world of East-West confrontation. ("A tri-polar world would be more stable," Crawford observes.)

As gameplay evolved, Crawford realized that the message had become one of crisis avoidance. "I wanted players to be aware of what are known in military analysis as 'soft factors,' the intangibles that make for the balance of power." In *Arms Race*, the soft factors include "pugnacity" (how tough both sides act), "integrity" (opponents' credibility) and "nastiness" (the level of weapons and confrontation in the world). All these soft factors have enough randomness thrown in to keep players on their toes as they maintain competition while trying to reduce confrontation.

"Both liberals and conservatives should be satisfied with this game," says Crawford, "because I'm not pushing any particular political point of view. I want people to look at complex issues in a fresh light. Basically, our current policies on armaments have been carried along by every Administration since Eisenhower. But they haven't made the world a better place to live. Even very ethical people have problems in defining the issues. Just wringing our hands over the arms race won't help."

Perhaps he should send copies to Reagan and Chernenko?

HIPPIE IN YUPPIE'S CLOTHING

Continued from page 29

taught nine and ten year-olds there. Tom, a science and music teacher, was offering such experiential learning as wiring his kids to lie detector probes, then linking their hands to create different kinds of circuits.

Anne and Tom wrote musicals for their fifth-grade students to perform. One play was about a washed-up inventor who tried to rip-off the students' ideas. Says Anne: "The plays helped individuals soar ahead in confidence and really got the class to cohere."

Since Tom's mom was a Broadway musical actress, this particular approach doesn't come as a surprise. Indeed, Snyder took a shot at a recording career — his band, T. Fenimore (he's distantly related to James Fenimore Cooper) released a couple of "dramatically unsuccessful" singles on Capitol Records — before he heard the "calling" to teach. "I'm addicted to teaching," Snyder explains. "I used to teach my little sister before she went to school. And my older sister was math-phobic: I liked to explain things to her."

He describes himself as "a bad student who hated school — nothing seemed more arbitrary to me than a teacher's assignment." Snyder switched majors at Swarthmore several times, settling on French, because, he says, "It was the only subject I was any good at."

Snyder's transformation from bad student to good teacher occurred when he walked into Shady Hill's science lab for the first time. "It was a magic day," he recalls. "They showed me the lab and I thought, 'This makes sense.' The kids come in and do things, and I have this responsibility to teach them. From that moment, I became the hardest worker I've ever known. When I became a teacher, I think my Dad (a banker) thought it was a wussy thing to do, though he was very supportive. I think he's glad now."

He immediately started working on an octopus-looking contraption that crudely simulated the human brain. Each arm had knobs which controlled part of a robot. His students had to work together to get the robot to accomplish certain tasks.

Personk, as he called it, attracted the attention of Parker Brothers, who attempted to meet with Snyder to discuss buying the product. "I purposely missed the meeting," he says. "I think I knew it was going to be a big change in my life once I started producing outside my own classroom. I wasn't ready, but I knew it was time to get ready." Shortly thereafter, he bought a Radio Shack computer and began designing simulations. The result was *The Search Series* (archeology, geology, geography and other "learning through doing" programs) that McGraw-Hill subsequently marketed, and which still accounts for a hefty percentage of TSP's revenues (1.2 million dollars in 1984).

Admirers of his work say Snyder's programs involve and inspire kids and get them to cooperate with each other. Critics, however, argue that they take too long to play, are difficult to learn and are inappropriately competitive for the classroom.

"What I dig in a program is excitement," he says, "I consider what extra element human beings can bring to the software — what can make it come alive. As a byproduct we often expose the kids to certain human values."

You don't kill aliens in TSP games, but there's practically no limit to what else you can do. In *The Halley Project* the goal is to travel to destinations in space, using real constellations to navigate. *In Search of the Most Amazing Thing* takes the players though alien cultures where they trade with the natives and write them songs in exchange for clues. Playing *Agent USA*, kids learn U.S. cities and relative distances as they track down the Fuzzbomb (an itinerant TV), which is turning citizens into Fuzzbodies.

Tom Snyder Productions may sound like a one-man show, but it's not. Omar Khudari, a 25-year-old Harvard philosophy graduate, helped design *The Halley Project*, *In Search* and *Agent USA*, and there are other Dartmouth, Brown and Brooklyn College graduates, who fill out the staff. Men outnumber the women. Everyone (except vice president Rick Abrams) is a designer, an artist or is apprenticing to become one or the other.

Snyder sees himself as more of an artist than a manager. He prefers to leave people alone, which he concedes has been frustrating for some of his employees. Many designers have come and gone at TSP and Tom says the main reason for this has been their inability to motivate themselves. "Nobody takes care of you here. You have to motivate yourself without any upper management pushing you. No one has ever left, but we've let a lot of people go."

Those who can motivate themselves get a long leash. Snyder indulges his staff's "emotional excesses," which he contends are part of the artistic process. If the excesses get in the way of work, "I wait it out. You have to trust them. If you treat people like artists, they'll act like artists." The policy seems to work. Morale is high, and so are the profits.

Still, financial gain is not Snyder's bottom line. As he says, "I grew up in the rock 'n' roll, drugs and free-thinking '60s, when we thought property was evil. I still live with cinderblock bookcases." Symbols of success don't seem to interest him, except as a target of contempt. He did, however, recently give in to Abrams and accept a bigger salary; Abrams wanted to make sure that his partner was fairly compensated just in case the company goes bust.

"Occasionally it drives me nuts when I find out one of my competitors has a Rolls Royce," Snyder says. "I say, 'screw him,' I don't want to compete with him anymore. I lose respect for people to whom signs of wealth are important." Instead, he defines success as "recognition of a measure of someone's energy and the misguided notion that they're going in the right direction."

According to Anne, her husband's success stems, in part, from "daring to follow his convictions." On a less heroic level, she points out, "He knows kids so well and he knows what teachers need."

THE 1986 GUINNESS BOOK OF WORLD RECORDS
has requested the results of this tournament for publication.

1985
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Each of the highest scoring contestants during the contest on any of the three games or systems above will win a free copy of that game. This offer void where prohibited by law.

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"His genius is his ability to understand what engages kids," Abrams adds. "Something I might think is boring or weird, when kids come in to playtest, they love."

The quality that devotees call "following his convictions," some detractors have called ego. His sometimes overbearing defense of unpopular positions can make him seem smug. "People are unnerved by the way he overstates the negative to elicit a response," says Anne.

But his stance on the software biz is anything but smug — he's got too much at stake. *The Other Side* exposes the company to risk as never before. There are the constant worries: changing computer formats, a school market that's notoriously slow to respond. Though TSP will market *The Other Side* cautiously at first, the shift for the company from purely creative work to manufacturing and marketing has Snyder relying even more on Abrams. Tom says, "Left to my own devices, I would sign deals too fast."

Nevertheless, on the eve of the new venture, morale isn't just high at TSP — it's giddy. Insecurities are necessarily channeled into competitive wisecracking. These kids are talented and charming, and one can understand why Snyder gives them so much slack. Over lunch on a slow and snowy day, they wolf down pizzas and watch videotapes of *Saturday Night Live*. Anne amuses their three-month-old son, Tim, on the floor of the conference room, as the pizza is inhaled. Abrams jokes that in a few weeks Tom should have the kid completely figured out.

Snyder flicks off the VCR and puts a CD on his new disc player. His office is cluttered with sound equipment: keyboards, synthesizers, mixing boards, amps and a big Tascom reel-to-reel. The sun breaks over the conference room as Tom blisses-out on Steely Dan. Baby Tim squeals on the floor.

It's a good time to lay back. The crunch of programming *The Other Side* is over. This afternoon it will be playtested and find-tuned some more. "What you're seeing today," Snyder says, as he surveys his slap-happy staff, "is the result of a lot of difficult years."

Some of TSP's most difficult times may lay ahead in his new role of publisher, but you'd never know it today. Everyone is just too intoxicated with their own rosy futures. The music on the new CD plays immaculately. Donald Fagen's voice cuts clear and harmonious through the room: "The danger on the rocks is surely past. Still I remain tied to the mast. Could it be that I have found my home at last. Home at last." Tom Snyder can't help but sing along.

MSX: JAPAN'S COMPUTER GAMBIT

Continued from page 51

program samplers, with snippets of 50 programs in each book. One features games and the other business programs, though the MSX is selling almost exclusively as an entertainment machine overseas. Nishi says it will also be presented as a game machine here.

The MSX machines are also considered faster than most popular game machines, bringing quicker screen reactions to speedy-fingered players. The video chip has its own memory, offering more room for more programming code and hence more complicated and better-looking programs for the player.

MSX developers also say the machines on the market now in Japan and Europe are just "first generation" the second generation is being readied for America and will offer more memory and a new graphics chip that will let the machine display 526 colors on the screen. Some developers are especially looking forward to that improvement, saying the existing models' 256 by 192 pixels screen isn't adquate. One compared the graphics quality of the basic unit to that of the TRS 80 color computer.

> It's likely you'll find all your favorite Commodore games quickly available on MSX cartridges, disks and cassettes.

Even peripherals are getting into the MSX act. SVI (Spectravideo)'s Quick Shot joysticks, available now for Commodore, Atari, Nec and Colecovision systems, are out in three versions (Styles I, II and V) for MSX. Two feature handle buttons, one a base button, and all have grips; and SVI promises more as the MSX machines — including its own — arrive.

Some developers say they'll jump on board because of the machines' familiar names. "These companies already dominate the technology in televisions," says Leonardo Jacobs, marketing manager for the Dutch company Radarsoft, which is converting its Commodore software line to MSX. "It's logical to be part of what they do." Radarsoft's *Maps* is already a hit in Europe and is being adapted not just in format but in content. The game features a whirring helicopter crossing distant landscapes, and the player guides it to cities or geographical sites in the world, Europe or — in the newest version — the United States. The already clean, colorful graphics can only improve on MSX machines, they say. Radarsoft also plans to produce its *Tempo Typing* learning game and a data base program, now on the Commodore 64, for MSX.

It's likely you'll find all your favorite Commodore games quickly available on MSX cartridges, disks, and cassettes. The hardware has a built-in operating system that easily runs most programs written for such CP/M machines as Osborne and Kaypro. Commodore software is easily converted to MSX format; Atari follows closely.

"In the short run, the large software base of [Commodore and Apple] will give MSX difficult competition in the home market," predicts Robert Chapman Wood, consultant with Modern Economics Co. of Scituate, MA and author of *The MSX Standard*, being published by Tab Books this spring. "But in the long run it is hard to imagine how Apple and Commodore could defeat the entire Japanese electronics industry."

The impact of MSX is being felt all over, not just among software manufacturers. Some industry watchers speculate that IBM introduced its recently resurrected PCjr not to make life miserable for Apple, Atari or Commodore, but to keep imports off its turf. True, the PCjr still has a higher price tag than any of the MSX army, but the wide selection of both business and entertainment software could sway some buyers.

"I believe in MSX because all those manufacturers are traditionally good in the audio-video business, so they have good distributors and familiar names," says Gabor Renyi of Andromeda Software in Budapest, Hungary. His firm is adapting its largely Commodore-based software selection to the MSX system, to be prepared when the machines enter the U.S..

They're finding that finely-tuned games lose little in conversion, says Jeannette McNeil, Andromedia's vice president. "It's not like converting from Commodore 64 to IBM, when colors sometimes change," she says. In fact, they're keeping changes to a minimum.

In the Andromeda game *Traffic,* being sold by Mirrorsoft in Europe now, the player directs cars and people on busy London streets. Andromeda toyed with switching the scene to famous Tokyo streets when the game was exported to Japan, but decided to keep London in the picture in all versions. "London is one of those cities where the streets are known," McNeil says. At least one new Andromeda text-and-graphics adventure game, *White Viper,* will be released first for MSX systems, McNeil adds. "If and when MSX comes to the U.S., we'll be ready."

The MSX concept is getting a helping hand from its impressive escort, Microsoft, which claims it is merely playing gatekeeper. But the software company is lining up other prospective MSX developers across the country to be sure the systems won't be short on software when they arrive.

"We hard an overwhelming message that a standard is certainly welcomed by everybody, and a standard supported by these players [Japanese firms] would be a very, very powerful one," says John Sabol, systems products marketing group manager, who is the liaison with Microsoft Far East. "The computer is working its way into a place as an integrated component of the home entertainment system. We're not going to compete with Commodore."

But even Nishi says otherwise. He compares the capacity and function of the MSX standard to the new Commodore 128, more than any other American machine. Apple's IIe and IIc are the other prime competition, he says; the Macintosh and PCjr are not. "Atari is a vertical computer maker: high, medium and low-end," he says. "MSX is different. We'll be constantly spreading ...video disks, video cassettes, but all low-end. All consumer products.

"In the first phase, MSX will sell because it's cheap," he says. "In the second phase, customers will like it and customers will increase."

But the days of a computer just invading the marketplace may be over. The hardware business is a slump now, and the odds are long of a Commodore 64, Apple II or IBM PC gaining immediate and large audiences. It took Apple's Macintosh the better part of a year to get a solid "installed base," and nearly that long before there was a broad repertoire of useful software.

Wood, after watching the MSX sweep through Japan, disagrees. Even initially-low MSX prices will drop, he says. "Though some 4 million [Apple and Commodores] have been sold, they are present in much fewer than 10 percent of American homes," he says. "Most homes either haven't yet bought a microcomputer or have only experimented with a Timex-Sinclair or Texas Instruments toy. Even many Commodore 64 owners who don't yet own a printer or a disk drive will be able to upgrade to an MSX for only slightly more money than adding Commodore peripherals." At least, he says, MSX will force Apple and Commodore to upgrade their home products. At worst, he says, their days of home market leadership "are numbered."

Luc Sala, a European journalist who is starting an MSX magazine, says MSX will have to improve to impress the American buyer. He says they'll want faster, more versatile machines once they've bought their first MSX. "A driving factor is the interfacing with other home/recreational and videogaming equipment," Sala adds. "MSX has come to age in a rather unstable environment. American game computer companies have been having a tough time of it."

He believes MSX will become the big entertainment machine in the U.S. because of its big-name suppliers, their financial backing and the machines' price. "The support for MSX has to come from outside the U.S. and will hinge on its success in Europe," he says.

We'll see soon. Spectravideo, which already has facilities in Fremont, California, was expected to release its first MSX machine this spring. Wood says Matsushita, the world's largest consumer electronics producer, and Sony will likely lead the 1985 charge. He foresees some 500,000 homes opening to MSX in 1985 — even more optimistic than Nishi's forecast of 200,000 sales — and says the numbers could swell to between two and three million MSX computers finding a place in American households in 1986, and even double that the following year.

This will be a test year for the computer business. Amiga, the Atari ST series (the Macintosh look-alike), and the MSX all face big challenges. The tough questions remain: are the people who already have computers interested in changing or upgrading? Do the people who don't yet have them want one? Is good entertainment software enough to sell a low-priced machine? We should have an idea of the answers to these questions when we chime in 1986.

FINDER OF LOST ARCADES

Continued from page 42

In my search for lost arcade games, I stumbled upon one that, three years after its disappearance, still has game designers and executives who worked for a certain company shaking their heads and pointing fingers at each other. Because of the sensitivity of this matter, everyone involved asked that they not be identified. The company and the game in dispute will remain nameless as well.

According to one of the game's programmers, whose credits include the design of a particularly popular game (let's call him Ted), this game was "better than any other game" that he had worked on. "One of the reason the game wasn't produced," Ted insists, "was political. The company's stringent hardware requirements was one problem we ran into, and then there was the political stuff."

An executive at the company, who appeared disturbed that Ted had discussed the matter with me, offered the following explanation:

"In this particular case, the reason [the game] was cancelled was not because the game was not a very good game or a very good idea. It had to do with the personnel (the programmers) not meeting their commitments. The head programmer was actually fired because he was not doing what he was supposed to be doing. He was screwing around, and he was into some drugs and things like that. And Ted almost was fired at the time for some of his antics.

"It's very touchy — the reasons why he [Ted] thought a game might be cancelled versus what really happened. And I think you're going to find that true of not just our company, but of some other companies."

We've all heard of drugs in the arcades, and drugs at the arcade companies are no surprise, either. "There was a time," Ted says, "that a lot of drugs were floating around, and not just at our company. If they fired everybody who was using drugs, there'd be about one person left. Some people took them recreationally, and some people took them to stay awake. They [the company] wanted games out by tomorrow. Sometimes half the staff would be up for 36 hours straight to make a deadline." Drugs are one way to stay awake.

"Everyone was aware of the goings-on, and it was becoming a problem. Executives often didn't even allow games to come to completion. Most companies would shove a game out the door as soon as a game was running. And what I mean by running is just getting something moving on the screen. So some programmers actually would leave bugs in the game and not show it during the daytime when people were there — just to be allowed to work on it."

Ted has since left the arcade game business, and now works for a computer software firm. He admits to missing the industry and says he'd like to someday finish up that game, but shudders at the thought of working under the sort of pressure he just described. Another designer who recently abandoned the field entirely is Tim Skelly — one of those "superstars" who had his share of hits and misses during an eventful tour of arcade duty. Now in the film industry, Skelly fondly recalls the success of such games as *Starhawk, Rip Off, Star Castle* and *Reactor,* but it's the failure of one game that's left him with a bitter taste about the arcade business.

"*Screwloose* was the best piece I ever did, bar none," Skelly sighs. "I'm a cartoonist and it was the first cartoon game I ever did." The main character was a robot, who wore sneakers. Objects flew around the screen, aiming for the robot's hands, which would fall off if hit and be swept away by an inchworm hanging out at the bottom of the screen. Each time you hit one of the objects — records, bees, snipes — a bulb lit up on the side of the screen.

Says Skelly, "It didn't get built because I finished it up just about the time the industry was finishing up [late 1983]. *Screwloose* went out on test, but it made the same dismal collections as everything else that was going out then. Nothing was making money."

For a short while, laserdisc games did create interest and temporarily lifted spirits in the sluggish arcades. But it wasn't long before that bubble, too, would burst. Owen Rubin was one of many game designers who was assigned to a laserdisc project in 1983, only to have it canceled a year later. "I was going to do one based on 'Knight Rider,' the TV show," the King says. "There's a million hours of footage and outtakes — point-of-view shots from the driver's seat, stuff like that — that you'll never see. I had a bunch of things choreographed for it. Like you'd be chasing the bad guy and a train would come along; you'd have to push the turbo button at the right time to jump over the train. If not, K.I.T.T. (the 'Knight Rider' car) would slam on the brakes and you'd have to watch the train go by. I was really excited about it.

"Atari was ready to do the videodisc thing like crazy," Rubin reveals. "They had a state-of-the-art video lab, which they've since sold. When they released *Firefox,* the hardware failed terribly. Then the whole thing fell apart with Warner's financial problems."

Ed Logg, another Atari game designer, is hoping that his laserdisc effort will have a better fate. For two years he's been working on a Roadrunner cartoon game, but "it's sitting here and marketing's hemming and hawing again," he groans. If there's anyone at Atari who deserves respect, it's Logg — after all, he was the one who made *Asteroids* and *Centipede* household names (and ultimately household games, once Atari converted them for home use).

"I gave it (the Roadrunner game) to them in two flavors," he explains. "The videodisc as well as the non-videodisc version, and both did extremely well out on test. It might come out — all we have to do is get over the arcades's reluctance to buy another laserdisc game. That's what we're up against right now."

Well, it's always something. This year you can't give away a sophisticated laser video; a few years back it was nearly impossible to sell a game that advertised "vector graphics" (line-drawn images as opposed to filled-in raster graphics). Dave Nutting, one of the industry veterans (he's responsible for such prehistoric videos as *Gunfight* and *Sea Wolf,* as well as *Gorf* and *Wizard of Wor*), found himself stuck with *Earthfriend,* a color-vector flying game similar to Atari's *Star Wars,* when the arcades balked at the game's pricetag ($3500-$4000).

Surprisingly, Nutting wasn't bitter about this turn of events. Nor was he speaking doom like so many of the other design people I interviewed. "When we started with Bally back in 1973, the Midway division was doing about $50 million a year. By 1978, we were up to $80 million. In 1979, it jumped to $120 million, and then in '81 and '82 the business took off like a rocket — to $430 million. And now everybody's saying the business has collapsed. It hasn't collapsed, it's just retreated back to what we thought were fantastic years. Now we're back to $80 million and everybody's moaning and groaning. In reality, there's a good business out there."

But today's business upturn won't resurrect yesterday's lost arcade games. Many of them sit quietly in basements of the no longer rich and famous game designers; others don't even exist anymore. Says Ted sadly: "There were some great first-generation games, but we never really scratched the surface of what could be done in this new medium."

The arcade business is small and manageable again, and the rock-star mentality has vanished as if through a black hole, but are the arcades better off for it? Not according to Ed Logg. "I'm really turned off by the arcades," he says. "All the games are old. To me, there's no reason to go to an arcade anymore."

Actually, there are plenty of new games to be played in the arcades these days, and there seems to be a renewal of interest among players. Recently, I've found arcades almost as crowded as they were back in the old days. Who knows? The craziness could be starting all over again.

RUN, JOG, BOOT

Continued from page 34

Rohrer. It will allow exercisers to print out a detailed (by five-, fifteen- or sixty-second intervals) analysis of their heart rate during workouts. This invaluable information will pinpoint workouts, or specific times during an individual workout, that are not aerobic-efficient. "It's roughly like an EKG being done while you exercise," Rohrer says.

The Quantam SL package includes a modem (for interaction with the watch after your exercise — you simply plug it in, type a few commands and soon you'll have the printout), the software itself and a printer. Of course, the Quantam XL will also be able to perform all the usual functions of a Commodore 64.

Another company with futuristic intentions is Bio Technology, Inc. (6924 NW 46th St., Miami, FL 33166), which makes portable bike computers and other sports training aids. It will soon introduce *The Fitness Game* ($99.95, versions for IBM, Apple and Commodore planned), the first of a series of products that will eventually lead to its on-bike units' computer compatibility.

The Fitness Game uses an exercise module to record your workout data during a home workout, on an exercise bike, rowing machine, treadmill or even Jane Fonda's aerobics routine. The module, which will not work out-of-doors, reports your exercise data to your computer. The computer screen will continuously show indicators for caloric expenditure, distance, speed, elapsed time and target heart rate. The program will store all such data, making a convenient log of at-home exercise. This log also calculates a "Fitness Quotient," which provides you with an educated guess about your maximum oxygen intake (an increasingly agreed-upon optimal measure of fitness).

All these programs add up to an ever-changing, ever-improving market for those of us interested in both fitness and computers, from people like Roger Bodo in suburban Detroit to progressive sports-computer scientists in the Silicon Valley. And if it's all the same to you, triathlete and insurance agent Crosby McDowell of Phoenix will keep with Bodo's simple intentions for now, thank you. "We've (his son also) been using *The Aerobics Master* for more than two years, particularly for running," McDowell explains. "I hope somebody will soon develop a triathlete-oriented software package. But I'm happy with *The Aerobics Master;* it's made me a better, more consistent runner. In fact, it's the most-used program in our house."

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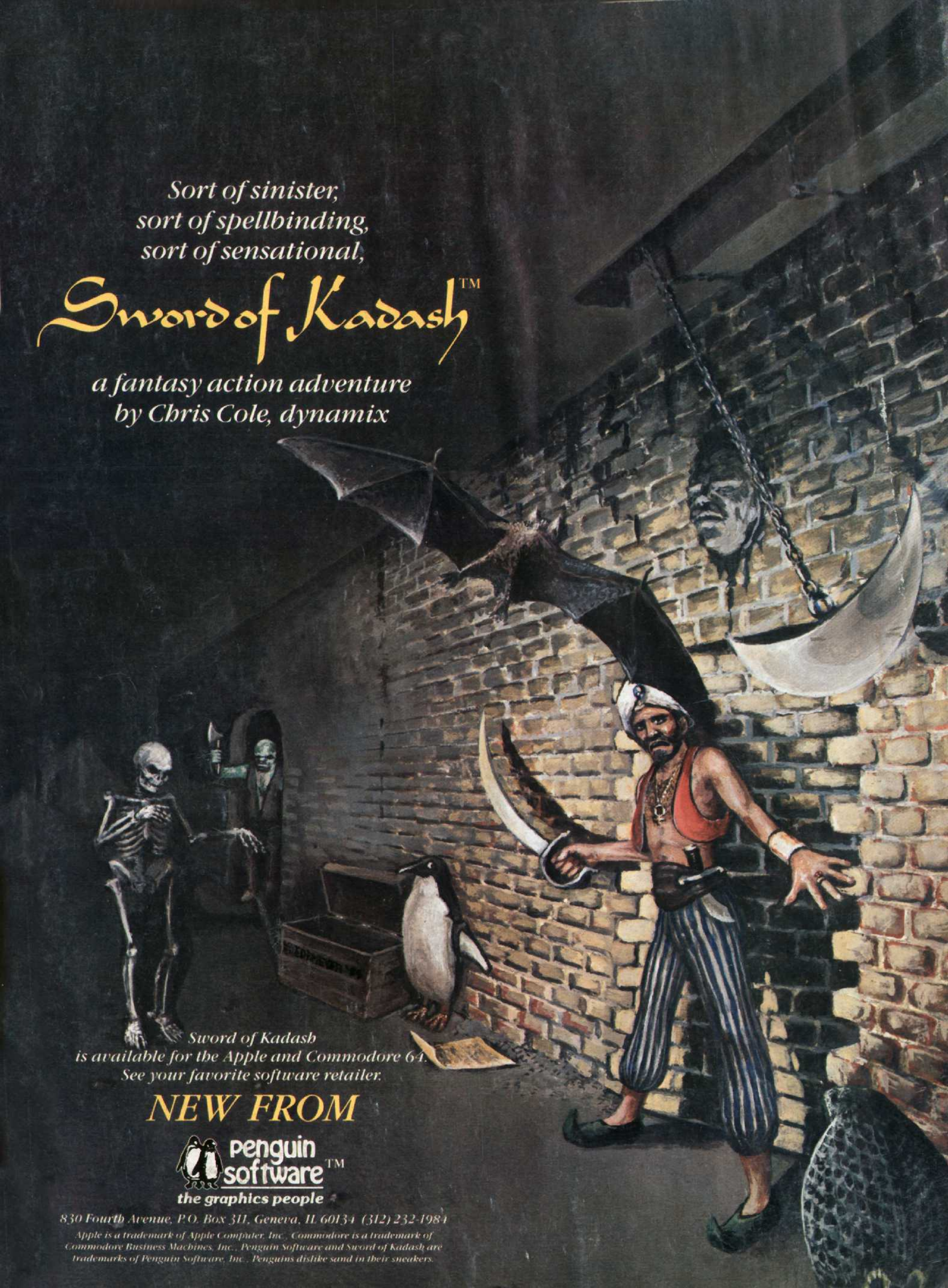

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